DOCUMENT RESUME

ED 470 388 SO 034 117

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TITLE	Primary Grade Students' Knowledge and Thinking about Government as a Cultural Universal.
SPONS AGENCY	Spencer Foundation, Chicago, IL.
PUB DATE	2002-00-00
NOTE	222p.
PUB TYPE	Numerical/Quantitative Data (110) -- Reports - Research (143)
EDRS PRICE	EDRS Price MF01/PC09 Plus Postage.
DESCRIPTORS	Educational Research; *Government (Administrative Body); Interviews; Primary Education; *Prior Learning; *Social Studies; *Student Reaction; United States Government (Course)
IDENTIFIERS	*Concept Recognition; *Cultural Universals

ABSTRACT

Based on part of a line of research on children's prior knowledge and thinking (including misconceptions) about topics addressed in the traditional K-3 social studies curriculum, a study was designed to provide such information with respect to the topic of government. Individual interviews were conducted with K-3 students (n=96), stratified according to grade level, achievement level, and gender. Students were asked 24 questions including what government is, who is the head of the U.S. government and how that person gained office, who can become president, what are the differences between presidents and kings and queens, who is allowed to vote, why rules and laws are needed, what taxes are, who owns the school and pays the teachers, what are differences between public schools and private schools, and other similar questions. Analyses of the responses replicated and extended previously reported findings about children's thinking on government. Sophistication of responses was related more closely to age (grade level) than to achievement or gender. Findings are discussed with emphasis on their implications for early elementary social studies. The belief is that primary-grade students stand to benefit considerably from treatments of cultural universals that are more powerful than those typically offered by textbook series. Appended are interview questions and a table. (Contains 52 references.) (Author/BT)

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ED 470 388

PRIMARY-GRADE STUDENTS' KNOWLEDGE AND THINKING ABOUT GOVERNMENT AS A CULTURAL UNIVERSAL

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SO 034 117

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The research reported in this manuscript was made possible (in part) by a grant from the Spencer Foundation. The data presented, the statements made, and the views expressed are solely the responsibility of the authors.

The authors wish to acknowledge and thank Carolyn O'Mahony and Tracy Reynolds, who conducted the interviews and coded the transcripts; Jill Schaberg, who verified the transcripts; and June Benson, who transcribed the interviews and assisted in all aspects of data and manuscript preparation.

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Abstract

Part of a line of research on children's prior knowledge and thinking (including misconceptions) about topics addressed in the traditional K-3 social studies curriculum, this study was designed to provide such information with respect to the topic of government. Individual interviews were conducted with 96 K-3 students, stratified according to grade level, achievement level, and gender. The students were asked what government is, who is the head of our government and how he gained office, who can become President, differences between Presidents and kings or queens, totalitarian governments and how their leaders gain office, who is allowed to vote in our country, differences between the Democratic and Republican parties, desirable qualities in a President, where the President lives and works and what he does, activities of the U.S. Government, where the state Governor lives and what he does, activities of the state government, activities of people who work in the capitol building, where laws come from, whether laws can be changed, examples of laws that are being enacted or changed currently, what citizens can do if they oppose a law, why we need rules and laws, the difference between a rule and a law, the function of judges, the activities of people who work for the government, what government does for people, how the government raises money to pay for its activities, what taxes are, who pays taxes, what is done with tax money, how police and firefighters are paid, who owns the school, who pays the teachers, differences between public schools and private schools, and whether the child would like to be President when he or she grows up (with explanation of why or why not).

Analyses of the responses replicated and extended previously reported findings on children's thinking about government. Sophistication of responses was related more closely to age (grade level) than to achievement level or gender. Findings are discussed with emphasis on their implications for early elementary social studies.

Anthropologists and other social scientists often refer to cultural universals (sometimes called "social universals" or "basic categories of human social experience") as useful dimensions for understanding a given society or making comparisons across societies (Banks, 1990; Brown, 1991). Cultural universals are domains of human experience that have existed in all cultures, past and present. They include activities related to meeting the basic needs of food, clothing, and shelter, as well as family structures, government, communication, transportation, money or other forms of economic exchange, religion, occupations, recreation, and perhaps others as well. The term implies that activities relating to each cultural universal can be identified in all societies, but not that these activities necessarily have the same form or meaning in each society. On the contrary, it recognizes variations among societies (as well as among individuals within societies) in orientation toward or handling of common life events associated with each cultural universal (e.g., family structures are universal, but different cultures and individuals within cultures have different notions of what constitutes a family).

Cultural universals have special importance for early elementary social studies because much of the basic content taught in the primary grades focuses on them. The traditional reasoning has been that teaching students about how their own and other societies have addressed the human purposes associated with cultural universals is an effective way to establish an initial, predisciplinary knowledge base in social studies, preparing the way for the more discipline-based courses of the middle and upper grades. Two major reasons are cited commonly by supporters of the argument that organizing early social studies around cultural universals provides a sound basis for developing fundamental understandings about the human condition. First, human activities relating to cultural universals account for a considerable proportion of everyday living and are the focus of much of human social organization and communal activity, so instructional units on cultural universals provide many natural starting points for developing initial social understandings. Until they understand the motivations and cause-and-effect explanations that underlie these activities, children do not understand much of what is happening around them all the time. As they develop such understanding, previously mysterious behavior of their parents and other people significant in their lives becomes comprehensible to them, and they become equipped with intellectual tools that will enable them to begin to develop efficacy in these domains themselves.

Second, children from all social backgrounds begin accumulating direct personal experiences with most cultural universals right from birth, and they can draw on these experiences as they construct understandings of social education concepts and principles in the early grades. If cultural universals are taught with appropriate focus on powerful ideas and their potential life applications, all students should be able to construct basic sets of connected understandings about how our social system works (with respect to each cultural universal), how and why it got to be that way over time, how and why related practices vary across locations and cultures, and what all of this might mean for personal, social, and civic decision making.

Not everyone agrees with this rationale, or even with the notion of social studies as a pre- or pandisciplinary school subject organized primarily as preparation for citizenship. Some people advocate basing school curricula directly on the academic disciplines. They would offer separate courses in history, geography, and the social sciences, simplified as needed but designed primarily to pursue disciplinary goals rather than citizenship education goals. With particular reference to the primary grades, Egan (1988), Ravitch (1987) and others have advocated replacing topical teaching about cultural universals with a heavy focus on chronological history and related children's literature (not only historical fiction but myths and folk tales). We agree that K-3 students can and should learn certain aspects of history, but we also believe that these students need a balanced and integrated social education curriculum that includes sufficient attention to powerful ideas drawn from geography and the various social sciences, subsumed within citizenship education purposes and goals. Furthermore, we see little social education value in replacing reality-based social studies with myths and folklore that are likely to create misconceptions, especially during the primary years when children are struggling to determine what is real (vs. false/fictional) and enduring (vs. transitory/accidental) in their physical and social worlds.

Some of those who are opposed to a focus on cultural universals in early social studies have asserted, without presenting evidence, that there is no need to teach this content. Ravitch (1987) dismissed it as "tot sociology," arguing that it holds little interest or value for students, partly because they already know it from everyday experience. Larkins, Hawkins, and Gilmore (1987) also suggested that primary-grade students already know most of this content, so there is no need to teach it in school. The authors of this report have disputed these arguments, suggesting that the knowledge about cultural universals that children develop through everyday experience tends to be tacit rather than well-articulated. Furthermore, much of it is confined to knowledge about how things are without accompanying understandings about how and why they got to be that way, how and why they vary across cultures, or the mechanisms through which they accomplish human purposes (Brophy & Alleman, 1996).

Recent developments in research on teaching suggest the need for data that speak to this issue. Increasingly, theory and research have been emphasizing the importance of teaching school subjects for understanding, appreciation, and life application, using methods that connect with students' prior experience and engage them in actively constructing new knowledge and correcting existing misconceptions. In mathematics and science, rich literatures have developed describing what children typically know (or think they know) about the content taught at their grade levels. This information informs the design of curriculum and instruction that both builds on students' existing valid knowledge and addresses their misconceptions.

There is potential for applying similar methods in social studies if more is learned about children's ideas about topics commonly taught at school. So far, little such information exists about most topics addressed in K-3 social studies. Child development researchers have concentrated on cognitive structures and strategies that children acquire through general life experiences rather than on their developing understanding of knowledge domains learned primarily at school. Research in the Piagetian tradition has focused on mathematical and scientific knowledge, although there have been some studies of stages in the development of economic, political, and social knowledge (Berti & Bombi, 1988; Furnham & Stacey, 1991; Furth, 1980; Moore, Lare, & Wagner, 1985).

Nor have scholars concerned with curriculum and instruction developed much of this kind of information. There have been occasional surveys of knowledge about particular social studies topics (Guzzetta, 1969; Ravitch & Finn, 1987; U.S. Office of Education, 1995a, b). However, these have concentrated mostly on isolated facts such as names, places, or definitions, with reporting of findings limited to percentages of students able to answer each item correctly. To be more useful to educators, the research needs to emphasize questions that probe children's understanding of connected networks of knowledge and analyses that focus on qualitative aspects of their thinking about the topic, including identification of commonly held misconceptions.

Significant progress has been made in studying children's developing knowledge of politics and government. For example, children are much more aware of the administrative than the legislative or judicial aspects of government and they tend to view presidents as godlike figures notable for their power to get things done and their benevolence or caring about the needs of each individual citizen (Connell, 1971; Greenstein, 1969; Hess & Torney, 1967; Moore, Lare, & Wagner, 1985; Stevens, 1982). Research on economics knowledge has begun to uncover stages in children's development of understanding of, as well as common misconceptions in their ideas about, such topics as the functions of banks and the operations of retail stores (Berti & Bombi, 1988; Berti & Monaci, 1998; Byrnes, 1996; Jahoda, 1984; Schug, 1991).

Several teams of investigators have studied children's historical learning (Barton & Levstik, 1996; Brophy & VanSledright, 1997; McKeown & Beck, 1994). This work has demonstrated, for example, that much of the historical knowledge of fifth graders is organized in narrative form, so that it tends to feature stories focused around a few hero figures rather than less personalized causal analyses of historical trends. The students' narratives also tend to compress time and space by depicting face-to-face interactions between people whose life spans did not overlap (e.g., Columbus and the Pilgrims).

Very little information is available concerning children's knowledge and misconceptions relating to the cultural universals emphasized in K-3 social studies curricula. As a first step toward developing such information, we interviewed middle-class students late in the spring of second grade on various aspects of the topic of shelter (before and after they experienced an instructional unit on the topic). Shelter is not only a cultural universal but a basic need, and all of the students had had experience with it throughout their lives. Thus, if

Ravitch and others had been correct in their assertion that children develop clear knowledge about such topics through everyday experience, we should have seen such knowledge demonstrated by middle-class children who were nearing the upper end of the primary-grade range. Instead, we found that the students' prior knowledge about topics relating to shelter was limited and spotty, tacit rather than well-articulated, comprised of loose collections of observations rather than well-integrated knowledge networks that included awareness of connections and understanding of cause-effect relationships, and often distorted by inaccurate assumptions or outright misconceptions (Brophy & Alleman, 1997).

These findings motivated us to launch a series of studies on developments across Grades K-3 in students' knowledge and thinking about cultural universals. Our intention is to generate findings that will have immediate value to social educators interested in developing more powerful curriculum and instruction for the early grades and teaching in ways that connect with students' prior knowledge. We also expect the findings to be of interest to scholars who study developments in children's general cognition or domain-specific knowledge.

All of these studies involve interviewing large samples of students stratified according to grade level (K-3), prior achievement level (high, average, low), and gender (boys, girls). In addition, the first two studies (on shelter and clothing) involved stratifying students according to the socioeconomic status (SES) of the populations served by their respective schools (upper middle-class suburban, middle-class suburban, lower middle-class urban). Interview protocols feature questions designed to elicit extended statements of students' thinking about the topic. Responses are coded for the presence of commonly mentioned ideas or response elements, and scores derived from these codes are subjected to quantitative statistical analyses. In addition, unusual responses or elaborations of common responses that go beyond the basic ideas represented by the coding categories are listed and discussed in the reports. Analyses focus on general levels of knowledge and trends observed across grade levels, but with attention to how these trends interact with prior achievement level and gender. Findings are discussed with emphasis on their potential implications for curriculum and instruction in primary-grade social studies and on what they suggest about more general developments in children's social knowledge and thinking. Complete technical reports of our findings are made available through the ERIC system as they are completed. Currently, reports are available concerning students' knowledge and thinking about shelter (Brophy & Alleman, 1999b) clothing (Brophy & Alleman, 1999a) food (Brophy, Alleman, & O'Mahony, 2001), communication (Brophy & Alleman, 2001a), transportation (Brophy & Alleman, 2001c), and family living (Brophy & Alleman, 2001b).

Research on Children's Knowledge About Government

More is known about children's knowledge and thinking about government than about any of the other cultural universals addressed in our series of studies. However, much of this work was done between 1965 and 1985, and most of it was done with students in the middle and upper grades. We focused on developments across the primary grades, both to update the earlier findings and to address certain aspects of government that had not been included in previous research.

Early Studies

Early studies of political socialization were conducted by Hess and Torney (1967) and Greenstein (1969) in the United States and by Connell (1971) in Australia, among others. These studies indicated that young children idealize political authorities and consider them to be benevolent. They develop deep emotional ties to the President, whom they regard as the major political authority and as a person who can provide individualized assistance to people who telephone or visit the White House. Police officers are more important in children's immediate world than the mayor or other local political leaders. Young children have very positive attitudes toward the police and regard them as personally nurturant—helpers in times of trouble. These indiscriminately positive and benevolent views of political leaders become less so as children move through childhood and into adolescence. The government, the President, and other political concepts and roles are understood initially in personal terms, but these are replaced by more abstract conceptions in late childhood.

In a questionnaire study of children in Grades 2 through 8, Hess and Torney (1967) found that the younger children often personalize the government into a single individual, as in referring to government as "the man who signs the checks." Later, images of government shift from individuals to institutions (the offices), and still later to political processes.

Young children's focus on the President includes the belief that he makes the laws. Only a small minority even mentions the Supreme Court, and an even smaller minority mentions Congress. Children picture the President as running the country personally: He is the boss of everything, travels a lot, makes speeches, cares about concerns raised by individual citizens, and attempts to address them personally. As children get older they distinguish between the personal characteristics of the President and the abilities needed to perform the job. They like the President less as a person but respect him more for his abilities. They describe him as knowing more and working harder than most people, being a leader, and making important decisions all the time.

Young children also tend to view the law as helpful and protective, initially keeping people safe and later facilitating smooth running of the country. They tend to see laws as just and unchanging, believing that most laws were made in the distant past and have a permanence and weight of tradition behind them. They have dual expectations for police officers—that they will enforce the laws but also help people in need.

Children tend to think of government as benevolent and put their trust in it, so they have difficulty conceiving or approving of the activities of pressure groups, parties, conflict, etc. They are somewhat aware that big companies influence government, but do not tend to think that rich people have any more influence than average people. They tend to idealize elections, believing that candidates should not say unkind things about one another, that the loser should join in support of the winner, and the winner should be gracious and forgiving.

Hess and Torney found small but consistent gender differences. Boys tended to acquire political attitudes more rapidly than girls and to express more interest in political matters. Girls tended to be more attached to political figures and more likely to express trust and reliance on them or to speak of the inherent goodness of the system, whereas boys tended to be more focused on tasks and willing to accept and see benefit in conflict.

Greenstein (1969) administered questionnaires to students in Grades 4 through 8. He also found that children's ideas about politics were remarkably free of cynicism. Almost all fourth graders could name the President and most could name the mayor of their city (New Haven), but only minorities of them had much knowledge about the roles or duties of these leaders. Essentially, they knew that the President was very important but were not sure what he did, and they had little or no knowledge about the Governor or the legislature.

Those who were able to say something about the activities of the President or Governor stressed general benevolence (helping and taking care of people), and providing services such as parks for children, clearing snow from the roads, paying workers, or seeing that people have good homes and jobs. Noting that children pictured political leaders as benevolent, hardworking, and dedicated to the welfare of all, Greenstein suggested that this occurs in part because adults sugarcoat what they tell children about political leaders and in part because children identify with these leaders as parental figures and perceive them reverentially.

Among fourth graders, 96% could name the President, 92% could name the mayor, but only 33% could name the Governor. None knew the names of Congressmen, state legislators, city council members, etc. Other studies have shown relatively more familiarity with the Governor than the mayor, depending on the nature of the community in which children live. Residents of cities and towns with a strong mayor system are more likely to be familiar with the mayor, whereas residents of smaller communities governed by township boards or town councils presided over by weak mayors tend to be more familiar with the Governor.

At every level, children knew a lot more about executives than legislators, often viewing legislators as "helpers" of the executives. They could not even begin to respond to questions about differences between the two parties until sixth grade, and expressions of political philosophies were rare. Yet, 60% of even fourth graders declared a preference for one party or the other. Greenstein concluded that the direction of party affiliation is set early in life but understanding of what the parties are all about comes much later. Children's early conceptions of political authorities are more affective than cognitive in content.

Moore, Lare, and Wagner

Moore, Lare, and Wagner (1985) conducted a large study of children's political knowledge and thinking that has special relevance to our work because it focused on students in Grades K-4. It confirmed and expanded earlier findings that children's political orientations are more affective than cognitive, organized around images of political leaders as benevolent parental figures.

Children interviewed for this study lived in or near Los Angeles. Comparisons across grades indicated that they tended to know first about local government, then the state, and then the nation at the level of governmental activities, but to know first about the President, then the Governor, and then the mayor in terms of political individuals.

The authors described children as developing through pre-political, quasi-political, and political levels of thinking. Most primary-grade children are pre-political, initially possessing only symbol recognition (the President "signs papers," "makes speeches," or "has meetings") but later acquiring accurate but very general ideas about governmental processes or functions (the President "makes laws," "runs the country," or "solves problems"). There is no awareness of specific functions or division of labor between the President and other political leaders. Children think of a pool of governmental functions that are carried on by important people who help one another in various ways.

Children's political knowledge enters the quasi-political level when they begin to understand critical functions associated with political actors or objects (e.g., the President's interactive role with Congress in lawmaking, how the President governs or administers the country, the President's role in suggesting new legislation, or the President's preeminence in foreign affairs). None of the students interviewed for this study gave responses beyond this second quasi-political level of thinking, but the researchers posited a third, political, level that implied a more comprehensive and detailed knowledge of politics reflecting the content of high school or college civics or political science textbooks.

The students were studied longitudinally, interviewed yearly in each successive grade. The kindergarten findings were described in detail to provide a baseline for assessing knowledge growth later. Questions about who governs the country indicated that a third or more of the students were unable to respond or gave some irrelevant response. The most popular responses were as follows. Asked who is boss of our country, 24% said God or Jesus and 16% said the President (Nixon). Asked who does the most to run the country, 30% said God or Jesus and 15% said Nixon. However, when asked who makes the laws, 24% said the police, 15% God or Jesus, 12% Nixon, 9% other political figures, and 7% "the government." The students had difficulty distinguishing between the office and the incumbent. Some thought that long-dead Presidents were still alive, that several Presidents held office simultaneously, or that new Presidents were picked by Washington or Lincoln.

When asked where they lived, the kindergartners tended to name local streets or neighborhoods. They were focused on the local community and only vaguely aware of the United States and even less aware of California as a state.

Only 22% of the kindergarteners had heard of the two major political parties, although 46% gave reasonable answers when asked what a law is (either giving a general definition stating that laws are things you are supposed to do or giving a specific example such as not speeding). When asked what the President does when he goes to work, 51% did not know and the rest gave miscellaneous answers such as writes, governs, solves problems, helps people, makes speeches, or "tells his secretary to tape" (Nixon).

In talking about the police, kindergarteners gave dual responses similar to those reported earlier: The police enforce the laws but also help people in need. Asked whether people filling various occupational roles work for the government, 76% said this was true of judges and 67% said this was true of police. However, fewer than half of the students said that this was true of soldiers (49%), teachers (46%), or mail carriers (45%). In addition, 42% said that it was true of milkmen.

Only 24% of kindergarteners said that they knew what the word "government" meant, and only 12% generated specific responses when asked what government does. These ranged from helping the President to making pennies, making rules, judging people, and telling you what to do. These children generally knew less about what "government" does than about what some of the people who work for government do. Ninety percent were able to describe what the police do, but only 34% could describe what soldiers do and no kindergartener provided an adequate explanation of what politicians do. Other questions that yielded very low percentages of correct answers included explaining an election (7%), identifying then-Governor Ronald Reagan (2%), and identifying then-mayor Tom Bradley (1%).

Summarizing, the authors noted that the kindergarten children often confused religious with political authorities and were more likely to know famous Presidents of the past than to know the incumbent President. Few of them understood the term "election" or could recognize the names of both political parties. Almost half could tell what a law is but fewer than 20% could explain who makes the laws. They were clearer on the functions of the police and soldiers than the duties of the President, and few were able to distinguish consistently between public and private occupations.

Data on Grades 1-4 generally showed steady growth across the K-4 range. Occasionally, noteworthy advances appeared at a particular grade level, presumably as a result of political content included in that grade's curriculum. Examples of increases in the students' political knowledge included the following. When asked if a judge works for the government, 76% of kindergarteners answers correctly. Parallel figures for Grades 1-4 were 84%, 89%, 90%, and 97%, respectively. Correct-answer percentages for Grades K-4 were 46, 71, 77, 93, and 99 for "What is law?"; 7, 14, 36, 75, and 94 for "What is an election?"; and nonapplicable, 7, 21, 33, and 59 for "What are taxes?" (Kindergarteners were not asked to explain taxes.)

About three-fourths of fourth graders could give examples of what government does, but only 59% could define taxes (still, this was a big jump over the 33% who could do so in third grade). About a third of the children confused utility bills with taxes or thought that the requirement to pay these bills was a form of taxation. When asked about kinds of taxes, the most common response was the sales tax, follow by property tax and income tax. Some children mentioned social security taxes or referred to an "inflation tax." The authors concluded that most children are familiar with taxes because of the sales tax, but vague about the purposes for which taxes are used. When asked about why people pay taxes, only 19% of fourth graders said that they were used to pay for specific government services such as schools or aid to the poor. Some other children mentioned more general benefits such as keeping the country running. However, 25% mentioned specific private benefits such as retaining one's home or access to utilities.

When asked who can vote, nearly 70% of fourth graders mentioned a required age and 5% said that voters must be citizens. A smaller percentage said that anyone could vote and a few said that the candidates themselves or other people in government could not vote.

Confusion about who does and does not work for the government indicated vagueness about distinctions between the public and private sectors. Visible public figures such as police and judges were recognized most easily, perhaps due to their uniforms. Mail carriers were not as easily recognized as government employees. The greatest confusion was with teachers. Some students thought that television news reporters work for the government, as part of a belief that television news is presented by the government.

Only one percent of third graders and no younger students could define Republicans or Democrats, and only three percent could name a policy difference between the parties. Remarkably, although 60% of Greenstein's 1958 New Haven fourth graders expressed a preference for one political party over the other, this was true of only 7% of 1978 Los Angeles fourth graders.

Boys were more knowledgeable than girls, higher achievers more knowledgeable than lower achievers, and television news watchers more knowledgeable than nonviewers. All of these differences were relatively small, however.

The authors identified certain items of knowledge as "threshold variables:" cognitions that had the highest correlations at particular grade levels and may be thresholds leading to increasing understanding of the political domain. Threshold variables for kindergarten and first grade included knowing something about (1) what the government does, (2) what the President does, (3) taxes, and (4) the electoral process. For second and third grade, three additional threshold variables involved understanding the role of (1) Congress, (2) the Supreme Court, and (3) senators. Threshold variables for fourth grade included knowing about political parties and what politicians do.

The children tended to know more about the police, judges, and courts than about other aspects of government, presumably from watching television dramas. When asked about courts, 25% of third graders talked about their punitive function (bad guys go there and have to pay fines); 20% spoke of their adjudicative functions (determine guilt); 21% associated the term with judges, juries, or trials; 14% spoke of courts as facilitating legal proceedings (divorce, adoption, settling disputes); and the remaining students gave other responses or did not know. When asked about what judges do, 23% mentioned determining guilt or innocence, 18% presiding over a court or running a trial, 17% solving problems, helping people, or solving crimes, 12% determining punishment or jail sentences, and 7% listening to both sides and trying to bring out the truth.

In talking about laws, majorities of younger students mentioned their prohibitive functions. Small but growing (across grades) minorities spoke of prescriptive functions (they are rules that you have to follow). No kindergarten students and fewer than 10% of the students at any of the grades sampled said that laws serve a beneficial or rational purpose such as keeping the world organized. Children tend to believe that laws emanate from a prestigious source (the police, God, or Jesus for kindergarteners and the President or the government for older students). Very few students were aware of Congress or other legislators as lawmakers.

In discussing their findings, Moore, Lare, and Wagner concluded that there was evidence for both developmental phenomena (stages as described by Piaget and by Kohlberg) and social learning phenomena as explanations for increases in knowledge. Developmental phenomena are most obvious in children's tendencies to think about government in terms of particular individual leaders and to endow these leaders with qualities of personal benevolence. Social learning is seen in their knowledge about individual names and issues of the day and about the activities of some governmental workers that they have opportunities to observe personally (police) or through television (the courts).

Berti's Studies

Although the pace of research on children's political knowledge has slowed since the 1980s, studies continue to accumulate. In particular, noteworthy contributions have been made in recent years through studies done in Italy by Anna Berti and her colleagues.

Berti (1994) began by probing Italian third graders' understanding of political concepts used in their textbooks. One term was governing, addressed in the context of ancient Egypt and the pharaohs. When asked to define the meaning of government, 56% of third graders said that it involved commanding associated with public functions (issuing laws, directing armies, etc.) but 44% restricted the commanding to getting personal services for oneself and one's family.

The students were vague about the actual tasks involved in governing. The text had described pharaohs' three main tasks as acting as supreme judge, high priest, and commander of the army. When asked what pharaohs did, none of the students mentioned these three functions spontaneously. Berti concluded that it is difficult for third graders to imagine the exercise of power in terms of specific functions rather than as generic commanding (ordering servants about).

When asked to define democracy, only seven percent of the third graders defined it as election of representatives. Most could not respond and the rest described it in evaluational terms without actually defining it (e.g., democracy is the best form of government).

Most of the children's conceptions of government depicted face-to-face commanding rather than government through hierarchies of offices. Thus, they depicted military commanders as personally leading their armies into battle and supreme court judges as personally hearing criminal cases and assessing punishment to the guilty. Berti concluded that third graders possess an idea of a chief rather than that of a government or distinct political domain. The notion of political roles ordered hierarchically emerges over the next several years following third grade.

Berti and Ugolini (1998) probed first-, third-, fifth-, and eighth-grade Italian students' knowledge of the judicial system. This study followed up an earlier study indicating that first graders did not know the role of the judge and thought that police decide how much time a thief spends in jail. Those who did know about judges thought that their job was to establish guilt and punishment as requested by the victims of a crime. None of these children mentioned laws, either as something to be studied before becoming a judge or as something to consider when making decisions. Also, none said that judges were paid by the state. Some thought that they were unpaid and others thought that they were paid by the police, the accused, or the plaintiffs. Thus, for first graders, judges did not appear to be members of any organization. Third graders knew more about judges but their representations were not much different from those of first graders. Fifth graders described judges as public servants paid by the state, but only by eighth grade did students mention legal studies and basing decisions on the law.

Berti and Ugolini asked students about judges, lawyers, witnesses, prosecutors, and juries. Only eight of 20 first graders correctly described judges, and none correctly described lawyers. The corresponding numbers for third graders were 13 and 5, and for fifth graders 16 and 14. Similar numbers appeared for witnesses, prosecutors, and juries. There were common confusions, such as assigning judges the single task of banging a gavel when people got noisy, depicting lawyers as judges or helpers, confusing witnesses with the audience or lawyers, and confusing the jury with the audience or assigning it imprecise tasks such as trying to find out some information.

First and third graders either did not know who makes laws or mentioned various local authorities such as the mayor, the police, or the judge. Fifth graders tended to speak more about central authorities such as the president, the government, or lawmakers. Only at eighth grade did most participants mention the parliament.

Berti and Benesso (1998) asked Italian kindergarteners, third graders, and sixth graders to define various terms connected with the concept of nation-state. Kindergarteners tended to define kings by referring to attributes emphasized in fairy tales (crowns, rich clothing, husband of queen or father of princess, etc.) or to commanding servants or slaves. Third graders were more likely to mention commanding the population as a whole, and sixth graders focused exclusively on this response.

When asked about taxes, kindergarteners either couldn't respond or defined them simply as money. Third graders were more likely to define them vaguely as bills that had to be paid, whereas sixth graders were more likely to say specifically that they supplied money to finance the government of the state.

Berti and Andriolo (2001) interviewed a class of Italian third graders about core political concepts before launching a unit of instruction with them. Their data indicated that, prior to instruction, the third graders had very few concepts, either correct or incorrect, about political offices. They were vague about how governmental leaders get their offices or what duties they perform. They were more knowledgeable about topics relating to school and the police, although largely ignorant of the role of government or lawmakers in determining such things as who must go to school or what is studied there. The students represented teachers or police as employees but not yet as public servants. Many thought that they were paid by their bosses, using either their own money or money obtained from a bank. Fewer than half of the students could say anything about judges, mostly attributing decisions about guilt, penalties, or disputes to them. Some misattributed functions such as giving money to people, supervising workers, or making laws. The children had difficulty distinguishing laws from rules (by saying that laws are decided by political authorities such as the state or the president).

Looking across their own and others' studies, the authors suggested that children's core understanding of the political world develops through a four-step sequence. Before ages 6-7, children show little understanding of economic and political institutions. They tend to believe that people perform activities relating to occupational roles because they feel like it (police catch criminals because they want to, bus drivers drive buses so that people don't have to walk, etc.).

Understanding of societal institutions begins around ages 6-7 with awareness that teachers cannot treat pupils however they wish and other workers cannot do whatever they want (and that people perform occupational roles because these are their jobs and allow them to earn a living). At first children do not have the notion of an employee, believing that all or at least most people work on their own and are paid by their customers (e.g., teachers by parents, bus drivers by passengers). They do not differentiate public institutions from private ones or distinguish laws from other social rules.

The third stage occurs between ages 8 and 10, when children acquire two ideas fundamental to understanding both economic and political systems: the notion of a boss who gives orders and pays, and the notion of an employee. Children start differentiating political characters from other people seen on television, attributing to them the function of commanding. They still lack the notion of political institutions because they do not yet distinguish bosses who are politicians from other kinds of bosses such as business owners. Nor do they clearly distinguish the roles of different political leaders or offices. They also do not yet possess clear notions of a nation-state, thinking about borders only as mountains, coastlines, rivers, or other physical barriers (walls, moats, etc.) and not understanding what a country or capital city is. They define laws as rules and attribute to laws the functions of preventing crime and disorder, but think of laws as made by the police, local authorities, or the president and announced through the media.

The full emergence of a naïve politics that includes the notion of a nation-state at its core does not appear until about ages 11-12. At this fourth stage children distinguish between different political roles (president, Governor, mayor) by assigning them different degrees of power and connecting them (incorrectly) within a command hierarchy (e.g., the president gives orders to the Governor who gives orders to the mayor). Children now can see the nation-state as a territory in which a central power makes laws for the whole country and in which police, army, judges, and teachers are seen as public servants paid by taxes. Laws are seen primarily as restrictions and prohibitions, without much appreciation of their functions for regulating relations between people and guaranteeing rights.

Other Studies

Along with the major lines of research reviewed so far, other studies done through the years have touched on issues relating to children's knowledge and thinking about government.

Barton (1997) described difficulties encountered by fourth- and fifth-grade students attempting to understand the American Revolution that were rooted in their minimal understandings of what taxes are, who establishes them, how they are collected, or what they are used for. Furth (1980) reported that British children were confused about the nature and purposes of taxes until reaching ages 10-11.

Finally, although children's attitudes and beliefs about political offices (especially the Presidency) tend to be positive and endowed with descriptions of benevolence, their attitudes toward specific politicians are often quite negative, especially as they get older. For example, Bronstein (1993) conducted focus groups with fourth- and fifth-grade children one week prior to the 1992 Presidential election. She found that the children articulated negative images of President Bush and negative ratings of his job performance, although they were unable to supply much factual content either in bolstering these opinions or supporting their arguments in favor of challengers.

Bailey (1976) administered a civic education questionnaire to students in Grades 3-6 every year between 1973 and 1976, during which Watergate and its ramifications were in the news. He found that attitudes toward President Nixon and his performance in office declined steadily from Grades 3 to 6 and that widely publicized political events impacted these attitudes.

Finally, it is worth noting that in 1999 an ABC News poll of 12- to 17-year-old American students indicated that although 62% of them believed that they or their child could become President one day, only 17% said that they would want this to happen. In comparison, fewer adults (53%) thought that their child could become President, but 30% would want it to happen. The latter figure was down from 35% in a 1992 poll, which in turn was down from 41% in a 1988 poll. The authors speculated that the trial and tribulations of President Clinton during the year before the 1999 poll hadn't "made the job look like a whole lot of fun" (Langer, 1999).

Similarly, a Voter News Service exit poll conducted on election day of 2000 indicated that only 31% of the voters questioned said that they would want one of their children to be President (Voter News Service, 2000).

Our Government Interviews

We developed an interview protocol designed to elicit students' thinking about what we consider to be key ideas that ought to be emphasized in an elementary social studies curriculum that treats government as a cultural universal. The content base for the interview was synthesized from three general sources: (1) social studies education textbooks and other sources that identified key ideas about government that are rooted in the social science disciplines; (2) information about government typically included in elementary social studies textbook series or in children's tradebooks on the topic; and (3) our own ideas about the key features of elementary social studies units that focus on cultural universals and are designed to teach the material for understanding, appreciation, and life application (Brophy & Alleman, 1996).

We believe that the most basic and important ideas for children to learn about government include: What government is, who is the head of our government and how he gained office, who can become President, differences between Presidents and kings or queens, totalitarian governments and how their leaders gain office, who is allowed to vote in our country, differences between the Democratic and Republican parties, desirable qualities in a President, where the President lives and works and what he does, activities of the U.S.

Government, where the state Governor lives and what he does, activities of the state government, activities of people who work in the capitol building, where laws come from, whether laws can be changed, examples of laws that are being enacted or changed currently, what citizens can do if they oppose a law, why we need rules and laws, the difference between a rule and a law, the functions of judges, the activities of people who work for the government, what government does for people, how the government raises money to pay for its activities, what taxes are, who pays taxes, what is done with tax money, how police and firefighters are paid, who owns the school, who pays the teachers, differences between public schools and private schools, and whether the child would like to be President when he or she grows up (with explanation of why or why not).

After identifying and sequencing the content base to be addressed, we developed and revised initial drafts of the interview protocol. These drafts featured primarily open-ended questions, typically followed by planned probes, designed to elicit extended statements of students' knowledge and thinking about the topic. Probes were designed to reveal whether students understood and could explain the concepts or relationships addressed by the initial questions (and if not, what alternative concepts or relationships they might have constructed).

The "funnel" interview technique was used, in which initial broad questions encourage students to make extended statements about a topic, attending to whatever aspects of the topic they select for focus on their own initiative, and explaining themselves in their own words. Probing then begins with follow-up questions asking (if necessary) for clarification or elaboration of what students have said in their initial statements. Finally, more specific questions are asked (if necessary) to call students' attention to aspects of the topic that they did not address spontaneously. This approach maximizes the degree to which students' responses reflect their own unique stances toward and construction of knowledge about the topic, and it minimizes the cueing of specific responses through suggestive questions. Yet, it also ensures that all of the students address certain key aspects of the topic (either because they do so spontaneously in responding to initial broad questions or because they are asked more specific questions later).

Successive drafts of the interview were piloted with students who were not involved in the later study. This pilot work led to revisions designed to make sure that all questions were clear, to specify probing and follow-up questions more completely, and to eliminate questions that were too easy or difficult to be useful. This process eventually yielded the final version of the interview shown in Appendix 1.

Sample

Our first two studies (on shelter and clothing) involved interviews with 216 students, 54 in each of Grades K-3, stratified within each grade by the socioeconomic status (SES) level of the community, the students' prior achievement levels, and the students' gender. The SES variation was introduced by conducting one-third of the interviews in an upper-middle class suburban community, one-third in a middle/working-class suburb, and one-third in lower-middle/working class neighborhoods of a small city. Together, these samples subsumed the middle three-fourths or so of the SES range in the general population.

The patterns of findings that appeared in the first two studies led us to discontinue further systematic sampling across the SES range, because the observed SES differences in these studies were relatively small and not especially interesting or informative. Students from higher SES backgrounds tended to have more, or more accurate, knowledge than students from lower SES backgrounds, but the same general developmental patterns were observed in each group. We did not find theoretically or practically interesting group contrasts (e.g., contrasts suggesting the existence of qualitatively different developmental paths or constructions of knowledge that were unique to particular SES groups). Consequently, we concluded that in our future work it would be more efficient to concentrate initial studies at the middle of the SES distribution (by interviewing in the same middle/working class suburb for which the middle SES samples in the first two studies were drawn). Possible group differences would then be addressed in follow-up studies. For example, we followed up the shelter study by interviewing students who lived in Manhattan, a highrise, high-density residence area that contrasts with the lowrise, low-density communities of the Michigan students interviewed in the initial study. Also, given that our food interview included several questions on farming and the origins of food, we followed up the initial food study with interviews of students from farm families.

The students interviewed for this study attended the public schools of a middle/working class bedroom suburb of a small city (population about 160,000). The community is average or slightly above average on most socioeconomic and educational indices. During the years when these interviews were conducted, the community's high school graduation rate was 83% and the percentages of its fourth graders who achieved "satisfactory" scores on the state's achievement tests were 49% percent for reading and 65% for mathematics.

Reflecting their school populations, the majority of the students we interviewed were white. We did not consider race or ethnicity in identifying students for the sample, except for the stipulation that all interviewees must have spent all or at least most of their childhood in the United States. Recent immigrants or students who had spent most of their preschool years in other countries were not included, because an assumption underlying the work was that what the students knew about government (other than what they had been taught at school) had been learned in the process of growing from infancy in the contemporary United States (particularly through home and neighborhood experiences and exposure to television and other media).

Interviewees were selected from among students whose parents gave us permission to do so. Most parents who returned our forms did give such permission, although a significant minority of parents never returned the forms despite repeated requests. Once the potential interviewees in a given classroom were identified, they were listed alphabetically by gender and the teacher was asked to characterize them, within gender groups, as being within the upper third, the middle third, or the lower third in general academic achievement. When we had access to more students in a given cell (e.g., high achieving male first graders) than we needed, the students to be interviewed were selected randomly from within the eligible group. When additional students were needed to fill out certain cells, we expanded sample recruitment to a nearby school in the same district that served a very similar student population. The sample included 96 students stratified according to grade level (K-3), achievement level (low, average, high), and gender (boys, girls).

Collection and Preparation of Data

Students were interviewed individually. The interviews typically lasted about 30 minutes and were conducted in small offices or other locations within their schools but outside of their classrooms. To facilitate rapport with students and make sure that their responses were preserved verbatim, the interviews were tape recorded, using a microphone that could be placed unobtrusively on the table and did not require either the interviewer or the student to handle it or speak directly into it. Interviewers were instructed to establish good rapport with the student before beginning and then to conduct the interview in a relaxed and conversational style rather than a more formal or test-like style.

The tape recorded interviews were transcribed by one person and then listened to by a second person who identified omissions and inaccuracies in the transcripts. Data for statistical analyses were then developed by coding the corrected transcripts.

Coding the Transcripts

We did not attempt to force students' responses into predetermined coding categories. Instead, we allowed the categories to arise from the data, using what have been called analytic induction methods for developing grounded theory (Bogdan & Biklen, 1982; Glaser & Strauss, 1979; Patton, 1990). Coding schemes were developed by reading responses to each question and identifying common ideas (embodied in similar statements) that represented alternative ways to respond to the question. Responses then were coded for the presence or absence of mention of these common ideas. Multiple codes were assigned if the student mentioned more than one of the ideas. In addition to categories encompassing common ideas, each coding scheme contained an "other" category for flagging rare or unique responses.

After initial versions of the coding schemes were developed and refined, reliability was established between two coders who coded one-fourth of the transcripts (stratified according to grade level, achievement level, and gender). Upon completion of this coding, the two sets of codes were compared and inter-coder agreement percentages were computed. Most coding schemes initially met our criterion of 60% exact agreement across coders. When coding schemes failed to meet the inter-coder agreement criterion, the coders analyzed the problem and made adjustments in the coding schemes, then coded the one-fourth sample of responses again. All of the revised coding schemes met the inter-coder agreement criterion at this point. Across the 34 coding schemes used, exact agreement percentages ranged from 60% to 100%, averaging 81%.

Once the coding schemes had met the reliability criterion and been revised as needed (to incorporate minor alterations or elaborations suggested by insights developed while coding to establish reliability), the two coders used them to code all 96 interviews. Upon completion of their independent coding, they compared their codes and negotiated agreement on all discrepancies. They also developed a running list of the rare and unique responses that had been coded into the "other" categories, as well as any unusual elaborations of common ideas that seemed worth preserving for possible inclusion in this report. Thus, the report encompasses not only the commonly observed response variations that were amenable to statistical analysis, but also the rare or unique responses and any elaborations on common responses that seemed worth including because they appeared to have theoretical or practical significance.

Once coding was completed, the codes were converted into scores that became the bases for statistical analyses. In most cases the codes were used as is. However, some commonly occurring responses that originally were coded in an "other" category were broken out to create new scores, and some categories that were coded too infrequently to serve as a basis for useful statistical analyses were folded into related categories or simply omitted from such analyses. For example, Question 16 noted that judges are part of the government and asked what judges do. Responses to this question were originally coded as follows:

0. Doesn't know/no relevant response/vague generality (help the government, talk to people, etc.)

1. Decide criminal cases: determine if people are innocent or guilt of crimes, send people to jail
2. Decide civil cases: make rulings in lawsuits, divorces, etc.
3. Judicial review: decide whether laws should be retained or dropped/changed, review decisions of lower courts
4. Preside over the courtroom, run the court, keep order, bang gavel and shout for order if necessary
5. Question to elicit facts, motives: talk to witnesses to clarify what they saw or heard, talk to the accused to clarify actions or motives, etc.
6. Other: relevant, substantive response not codable in previous categories (speaks very politely to people, lectures them about how to act properly or stop their criminal behavior, reviews jury decisions, etc.).

Inspection of the initial codes indicated that only one student mentioned judicial review and that a subset of the "other" codes ("lecturing" defendants about their conduct) occurred frequently enough to treat as a separate category. Consequently, in moving from the initial codes to the final scores that would be analyzed statistically, the single "judicial review" response was moved to the "other" category and the responses centering on "lecturing" defendants were removed from the "other" category and treated as a separate category of their own. As a result, the following scores for Question 16 were analyzed statistically:

0. Doesn't know/no relevant response/vague generality
1. Decide criminal cases
2. Decide civil cases
3. "Lecture" defendants about their conduct
4. Preside over the courtroom
5. Question to elicit facts, motives
6. Other

Data Analysis, Interpretation, and Presentation

Scores derived from the codes were subjected to statistical analyses designed to reveal trends in the sample as a whole as well as contrasts across subgroups of students who differed in grade level, achievement level, or gender. These analyses included frequency distributions and means reflecting the degree to which various ideas were expressed across the sample as a whole and within its stratified subgroups, correlation coefficients indicating the direction and degree of relationship among the variables, and Chi-Square analyses indicating when subgroup differences were large enough to reach statistical significance.

Initial inspection of the results of these analyses indicated that (1) the response patterns to most questions featured statistically significant and often quite dramatic grade level differences showing increases in level and accuracy of knowledge across the K-3 range, (2) the achievement level differences and (especially) the gender differences were much smaller and less likely to reach statistical significance, and (3) most of the achievement level differences that did appear were in the expected direction and thus not especially interesting or informative (that is, students who were higher in prior achievement level tended to have more, or more accurate, knowledge than students who were lower in prior achievement level, but the same general developmental patterns were observed in each group).

Given the uniformity of this pattern (with very minor exceptions that are noted when the relevant data are discussed), we decided to organize the presentation of findings in this report as follows. First, findings from related clusters of questions are presented together. For each question cluster, data presentation begins with discussion of general trends in the descriptive statistics, illustrated with excerpts from eight students' interview responses. We then present the findings on progressions in students' knowledge across Grades K-3 and on achievement level and gender differences. Except where the data indicate otherwise, we treat these group differences as relatively minor variations on the main themes established by the grade level differences.

Next, we turn to the correlational data, reporting noteworthy patterns that appeared in the relationships between the response categories under discussion and the categories used to code responses to other questions in the interview. These relationship patterns help us to interpret the meanings and implications of the various response categories, both in their own right and relative to one another. They are especially helpful when the grade level, achievement level, or gender differences found for a response category seem counterintuitive (if the descriptor for the category is taken at face value). Sometimes, the correlational patterns indicate that the responses coded into a category had different meanings or implications (e.g., were either more or less sophisticated) than the category descriptor seemed to imply.

After presenting these quantitative data, we turn to a more holistic analysis of what the findings suggest about developments in children's knowledge and misconceptions about government as they progress through Grades K-3. Along with the data shown in the table, these analyses include consideration of the rare and unique responses and unusual elaborations of common responses that were recorded and analyzed for potential significance. Taken together, these findings are discussed with reference to previous findings (where available), the understandings we have developed about growth and change in children's knowledge and misconceptions relating to government, and the potential implications of these understandings for curriculum and instruction in elementary social studies.

What is Government?

The first question on the interview asked the students to define government and explain what government does.

1. **Today we're going to talk about government. What is government?** (If necessary, define government as the people who are in charge of running our country.) . . . **What does government do?**

The first part of Question 1 (We will call it Question 1A) asked the students to define government. Almost two-thirds of the students were unable to respond to this question. Of the rest, half (17) defined it with reference to the President, the Governor, or some other individual person, and the other half (17) identified government as the organization or people that make laws or run the state or country.

Question 1B asked what government does. To prepare students for this question, those who had been unable to answer Question 1A were told that the government is the people who are in charge of running our country. Even after hearing this definition, 29 students were unable to respond when asked what government does. However, 36 students said that the government makes or enforces laws, and in addition or instead, 20 said that the government runs the state or country or solves its problems, 16 said that the government "helps people" or gives them money, food, clothes, or other things that they need, 14 continued to describe the government as a single individual rather than a group or organization, and 10 gave "other" statements (e.g., makes land, engages in wars or foreign affairs).

Note that the categories for Question 1B are numbered 0, 2, 3, 4, 6, and 7, respectively (i.e., numbers 1 and 5 are missing). Here and throughout the table, these occasional missing numbers indicate instances in which categories used in the original coding were dropped from the analyses because they were not used frequently enough to justify their retention. Any responses originally coded in these categories were redistributed to more commonly used categories (where appropriate) or else omitted entirely from the statistical analyses but included in the listing of rare and unique responses.

Taken together, the responses to Question 1 indicated that the majority of the students either could not define government or confused it with the Governor or some other individual leader. These trends replicate findings reported in previous research on students in the K-3 grade range, as do the trends indicating generally benevolent views of the activities of government (solving problems, keeping us safe, helping people, etc.).

The following examples are representative of responses to the first question. They are segments drawn from verbatim transcripts of the interviews, although they have been edited to eliminate extraneous material (mostly final probes that failed to elicit any additional response). Here and throughout the rest of the report, the examples are drawn from the transcripts of interviews of eight average achieving students, one boy and one girl from each of Grades K-3.

Kindergarten

Jered

1. I don't know. (The government are the people who are in charge of running our country. What does the government do?) Makes sure we . . . owns Michigan.

Kate

1. I don't know.

First Grade

Chris

1. It's the people that buy the stuff for the school. (Do they do anything else?) I don't know. (Well, the government are the people who are in charge of running the country.

What does the government do, do you think?) They buy food for everybody, they make the clothes. . . . I don't know what else.

Lauren

1. A President who . . . thinks about things. (OK. What sort of things does that person think about if they're in the government?) How people should act and they make rules about things. . . . He makes sure everything is OK with our country, our parades and stuff. (Is there one person that's government, or are there many people who are government?) There's lots of people.

Second Grade

Mark

1. I forgot. (What does the government do?) He like runs like, everybody.

Emily

1. The government is sort of a place and the governor rules the government. (What does the government do?) It makes land and stuff and it makes rules.

Third Grade

Dale

1. Government is basically a group of people that . . . for example, if someone thinks up a law, you gotta tell it to the government and they'll talk about it with each other and they'll announce it if they think it should or shouldn't be allowed. So the government is basically a group of people that decide on things about the country or city they're running.

Chelsea

1. Government is somebody that helps people a lot and he hardly has any time with his family. (What does government do?) They have to go when they need help. Sometimes they make laws like you have to wear your seatbelt or you get pulled over by a cop. (What sort of things does the government do to help people?) They make laws to help people so they don't drink as much as they used to and so they don't get in a car accident and don't buckle their seatbelt, because if they don't buckle their seatbelt, either they'll die, they'll hurt theirself or they'll get pulled over.

Grade Level Differences

Descriptive statistics and information from the Chi-square analyses of scores derived from the coding of Question 1 (and all of the other questions in the interview) are given in Table 1. The numbers in the columns for the total sample (N = 96), the four grade level groups (N = 24), the three achievement level groups (N = 32), and the two gender groups (N = 48) are simple frequency scores indicating the numbers of students in the sample as a whole and within each grade level, achievement level, or gender group who were coded for mentioning the idea represented by the response category. Sets of scores are underlined if the analyses described below identified statistically significant relationships between the frequency of use of a response category and the students' grade level, achievement level, or gender.

The score distributions were subjected to Chi-square analyses to determine whether the differences observed reached the .05 level of statistical significance. Two forms of Chi-square analysis were used. The first, used with all of the distributions, was a conventional Chi-square analysis that assesses the probability of obtaining the observed group totals if it is assumed that the variable appears with the same frequency in each group within the population as a whole (in other words, if it is assumed that there are no group differences). This Chi-square test does not take into account that the groups might be ordered on a dimension (e.g., grade level or achievement level). Consequently, a statistically significant result simply indicates that the variance in the group totals exceeds that which might be expected to occur because of chance variations in sample characteristics.

A related analysis, the Mantel-Haenszel Chi-square test, was used to assess the statistical significance of trends observed in the grade level and achievement level distributions. These two distributions involved a progressive ordering of their categories (from kindergarten through third grade, and from low through average to high achievement level). The Mantel-Haenszel statistic takes into account such progressive ordering and tests for directional trends (i.e., tendencies for the scores to either rise or drop as one moves up the grade or achievement levels). Statistically significant Mantel-Haenszel Chi-squares do not imply that the difference between each successive grade level or achievement level score is statistically significant, or even necessarily consistent with the overall trend. However, they do indicate that a statistically significant rising or dropping trend was detected across the four grade levels or the three achievement levels.

In compiling the data for Table 1, we first examined the grade level and achievement level comparisons for the significance of the Mantel-Haenszel Chi-square. If this Chi-square was significant at or below the .05 level, we underlined the group totals and recorded the phi coefficient (comparable to a conventional correlation coefficient) to indicate the direction and level of strength of the relationship between grade level (or achievement level) and the frequencies of coding of the response category in question. If the Mantel-Haenszel Chi-square did not reach the .05 level of statistical significance, we examined the findings for the conventional Chi-square. Usually this Chi-square also failed to reach significance, in which case we did not underline the group totals or record a phi coefficient in the table. In a few instances, the Mantel-Haenszel Chi-square was not statistically significant but the conventional Chi-square was. This indicated that there was statistically significant variation across the groups being compared, but this variation did not take the form of a systematically rising or dropping trend that paralleled the grade level or achievement level progression. Where these unexpected nonlinear group differences appeared, we underlined the group totals and placed the letters "NL" (standing for nonlinear) in the phi coefficient column. In summary, for the grade level and achievement level analyses, we (1) underlined the set of group totals and included the phi coefficient when the analyses indicated a significant directional trend, (2) underlined the set of group totals and entered "NL" when the analyses indicated significant nonlinear variance, and (3) did not underline the set of group totals and did not enter either a phi coefficient or the letters "NL" when neither of the Chi-square analyses yielded a significant result.

The Mantel-Haenszel Chi-square test was not appropriate for assessing the statistical significance of gender differences, because the two gender groups (boys, girls) are not ordered on a continuum. Consequently, the conventional Chi-square test was used for this purpose. When this test indicated a statistically significant difference between the two gender groups, the gender totals were underlined and the phi coefficient was entered to indicate the direction and strength of the relationship (negative phi coefficients indicate that the boys were coded significantly more frequently in the category than the girls; positive phi coefficients indicate that the girls were coded significantly more frequently than the boys). When the Chi-square test failed to indicate statistical significance, the gender totals were left without underlining and no phi coefficient was entered. To simplify the table, decimal points were omitted from all of the phi coefficients recorded.

Analysis of the scores derived from the coding of responses to Question 1 showed seven significant relationships with grade level (see Table 1). Two of these were negative relationships, indicating that failures to respond to Questions 1A and 1B were more common in younger than older students. This same trend appeared for almost all of the questions in all of our interviews. There is considerable variation from question to question in the percentage of students who say "I don't know" or are unable to provide a substantive response that speaks to the question. Whatever their frequency may be, these failures to respond to questions tend to be concentrated in the younger students, especially the kindergarteners. In this case, 62 students were unable to respond to Question 1A, of whom 23 were kindergarteners and 18 were first graders. Similarly, 29 students were unable to respond to Question 1B, of whom 18 were kindergarteners and 10 were first graders.

The other five significant grade level relationships for Question 1 were positive ones, indicating that older students were more likely than younger students to be able to make substantive responses. These included both of the frequently-occurring substantive responses to Question 1A (defining government as either the President, the Governor, or some other individual or defining it as people or an organization that runs the state or country). Among responses to Question 1B, positive relationships with grade level were seen for statements that government makes or enforces laws or that it runs the state or country. No significant relationship with grade level was seen for "helps people" responses or "other" responses.

Finally, person confusion appeared more frequently in the responses of older students than younger ones. This grade level difference was unexpected and would have to be considered counterintuitive if it appeared to indicate that accurate ideas possessed by kindergarteners or first graders had deteriorated into misconceptions among second- and third-graders. However, this is not the case. Instead, person confusion appears more frequently in the statements of older students because these students were much more likely than the younger students to be able to make extended substantive statements about the activities of government. Fewer person confusions appeared in the responses of the younger students because fewer of these students were able to say much about government. The overall developmental trend here appears to progress from being unable to say anything substantive about government to knowing something about governmental functions but personifying them in an individual leader to knowing more about governmental functions and understanding that these are carried out by a group or organization rather than a single individual.

In general, the findings from the analyses for the first question indicate that the older students were able to say more about government than the younger students, and that most of what they had to say was accurate as far as it went. The major misconception involved confusing "government" with "Governor" or with the President or some other single individual leader.

Achievement Level and Gender Differences

Analyses involving the nine response categories for the two parts of Question 1 revealed seven significant relationships with grade level but only four with achievement level and one with gender. Lower achievers were more likely to respond to Question 1A in ways that identified government with a single individual, whereas higher achievers were more likely to depict government as a group or organization. In responding to Question 1B, lower achievers again were more likely to identify the government with a single individual, whereas higher achievers were more likely to give "other" responses. These achievement level differences were similar to those found in our previous studies in that: (1) they generally paralleled the grade-level differences in direction, indicating that higher achievers were more likely to supply sophisticated responses to the questions, but (2) they were generally less pronounced and less often statistically significant than the grade level differences.

The only significant gender difference indicated that girls were more likely than boys to be coded for person confusion in responding to Question 1B. There also was a nonsignificant trend in the same direction for person confusion responses to Question 1A, as well as nonsignificant trends in the opposite direction (for both parts of the question) suggesting that boys were more likely than girls to refer to a group or organization that runs the state or country. Thus, although person confusion appeared in only a minority of the students, these were more likely to be girls than boys.

Relationships Among Response Categories

Although our interests lay more in group differences in response patterns, we also correlated scores for the different response categories, within and across question clusters, to see if any noteworthy relationships emerged. Most of the significant correlations were not especially interesting because they fit into one of three expected patterns. First, many were logically necessary negative correlations between mutually exclusive category alternatives within the same cluster (e.g., there was a negative correlation between failure to define government and the categories used to code the definitions that were given by the students who were able to do so). Second, some were logically necessary positive correlations that reflected part-whole relationships. For example, Question 15B asked about the difference between a rule and a law. Some responses merely gave examples of rules or laws or said something accurate about them but did not directly compare them. Other responses drew at least one contrast between rules and laws. There were positive correlations between each of the categories for these specific contrasts and a later category used to indicate that the student provided at least one contrast in responding to the question. Third, there was a general tendency toward correlation within and across clusters in the length and quality of the students' responses (i.e., certain students were more likely than others to be consistently unable to respond or to respond poorly to our questions; certain students were more likely than others to consistently make lengthy and complex responses; and certain students were better informed than others and thus more likely to consistently make sophisticated responses). Given that these three types of relationships were expected to appear and that the explanations for them are well understood, we will not describe them in this report unless there is some special reason to do so.

In addition to these expected relationships, however, the correlational analyses sometimes identified statistically significant relationships between response categories that would not necessarily have been predicted and that indicated interesting connections among students' ideas. Most of these interesting relationships involved categories that reflect qualitative differences in the ways that students approached the questions, as opposed to categories that reflect differences in the amount or accuracy of their knowledge.

Correlations involving responses to Question 1A indicated that students who showed person confusion in responding to this question were more likely than other students to show person confusion in responding to Question 1B as well. Except for their relationship with each other, these two codes did not show noteworthy correlations with other codes. However, students who provided the most sophisticated response to Question 1A (the government is the people or an organization that makes the rules or laws, runs the state or country, provides money for the school, etc.) also were more likely than other students to be coded for sophisticated responses to Questions 2, 3, 4, 5, 7, 9, 10, 11, 14, 15, 19, and 24.

These relationships appeared because sophisticated responses to these and other questions comprised a "maturity set" of response categories that were coded more frequently for older and better informed students. Across the interview as a whole, the maturity set included defining the government as the people or an organization that makes rules or laws, runs the state or country, provides money for the school, etc.; saying that the government makes or enforces laws; saying that the government runs the state or country; "other" responses concerning what government does; identifying "the President" or "Bill Clinton" as the head of our government; saying that he got to be President by winning an election; saying that people become kings or queens through marriage or inheritance; saying that everyone who is old enough to vote can vote in our country; saying that honesty, competence, or good governmental vision or policies are desirable qualities in a Presidential candidate; saying that the President lives and works in the White House and/or in Washington, D.C.; mentioning problem solving or giving realistic examples of problem solving in describing what the President/government does; saying that the Michigan Governor lives and works in the capitol building and/or in Lansing; mentioning generic problem solving or giving specific problem-solving examples in talking about what the state Governor or government does; stating that laws can be changed and giving a specific example of laws that have been introduced recently or might be changed; stating that their parents could contact the President, the Governor, the police, or their representative if they didn't like a law; stating that we need rules or laws to create a well-ordered society and avoid chaos; stating that rules are made by parents or teachers whereas laws are made by governments; providing at least one contrast between rules and laws; stating that you can break rules with no or only minor consequences, but you must obey laws or risk serious trouble; naming one or more specific government jobs when asked what people who work for the government do; using the word "taxes" or describing one or more common forms of taxation when asked where the money to pay for government comes from; specifically naming or describing sales taxes; defining taxes as money paid to the government;

stating that the government owns the police and fire stations and pays the police and firefighters; stating that this money in turn is provided by taxpayers; distinguishing between public and private schools on the basis of the sources of their funding; and giving specific examples of jobs done by people who work in the state capitol building. Throughout the rest of the report, when we indicate that a response category was part of the maturity set of responses to the interview as a whole, we mean that it tended to correlate positively, and often significantly, with the coding categories just identified.

Students who answered Question 1B by stating that the government makes laws were more likely than other students to talk about contacting one's representative when asked what parents can do if they do not like a law. They also were more likely than other students to mention making laws in talking about what governments do to solve problems and to be able to provide an example of a recently changed or added law. More generally, this response was part of the maturity set for the interview as a whole.

Students who answered Question 1B by indicating that the government runs the country and solves problems were more likely than other students to mention competence in problem solving as a desirable quality of a Presidential candidate and to talk about solving problems in discussing the activities of the President, the Governor, and the people who work for them. They also were more likely than other students to know about taxes, to distinguish between public and private schools on the basis of their sources of funding, and to mention daunting responsibilities in talking about the Presidency.

Students who described governments as helping people were more likely than other students to mention virtuous behavior generally or helping people specifically in talking about the activities of the President. More generally, students who viewed the government primarily as helping people tended to view the President and other government leaders as benevolent and virtuous individuals oriented toward helping others, whereas students who described government as running the country or solving problems tended to emphasize intelligence or problem solving competence in talking about the President or other leaders.

Rare and Unique Responses

The following responses to Question 1 involve interesting elaborations on the ideas represented by the coding categories or embody ideas that are not included in those categories. Most of these responses have been paraphrased to save space and focus on their key ideas, although occasionally rare or unique responses are quoted verbatim when it appeared worth doing so.

Question 1A: What is government?

Kindergarten: None.

First grade: A holiday; the people who buy stuff for the school; "If a boss in the government dies, we fly our flags halfway up;" the boss of the world.

Second grade: People who own the state.

Third grade: It's somebody who wants to be President, but there's already a President, so they're known as the government (i.e., the Governor).

Question 1B: What does government do?

Kindergarten: Sends notes to all the people; makes and buys food and medicine for people, so they don't die; keeps people from stealing our money from the bank; keeps people from running across busy streets and getting hurt.

First grade: Makes sure that places are clean, because if a bird ate something that shouldn't have been left lying on the ground, it could choke and die; like George Washington or a king or something, but not that rich; knocks down buildings or something; takes away your old clothes; tells how many trees, houses, farms and stuff (zoning); takes care of parades.

Second grade: Makes construction signs; makes land (unexplained); builds hospitals; people who could kick you out of your house if you didn't pay for your house.

Third grade: Pick new Presidents; give money to young people who don't have a house or something; make the taxes (i.e., pass the laws relating to taxes); ask doctors or scientists to find a cure if there's a disease; "They give a lot of orders and are bossy. They make people do what they want, because they don't want to do it themselves."

Discussion

The students in general and the younger students in particular were unable to say much when asked to define government, and those who did respond often confused the term "government" with the term "Governor" or otherwise identified the government with an individual person. In responding to the follow-up question about what government does (typically after being told that the government is the people who are in charge of running our country), they tended to emphasize making and enforcing laws, running the country and solving problems, or helping people in need.

These response trends parallel those seen in earlier studies indicating that children emphasize either or both of two main ideas in talking about government: Government as a source of authority and power that limits and regulates people's actions and government as a benevolent resource that protects us, solves problems, and helps people in need. Among these students, relatively neutral responses emphasizing making laws and running the country were more frequent than either positive responses that depicted government as benevolent or negative responses that depicted government as oppressive. Most students were not very clear about who does what, but they shared a general perception that the nation, state, and/or local community were run by competent people who took actions as needed to protect the health, safety, and general welfare of the citizens. A few displayed noteworthy naïvete in describing the extent of governmental benevolence or the motivations behind it (e.g., keep the streets clean to protect birds from choking) and a few others displayed resentment against governmental exercise of authority (e.g., enforcing eviction notices), but most spoke matter-of-factly when describing the nature and functions of government.

Older students compared to younger ones, and to a lesser extent higher achievers compared to lower achievers, provided more specific and sophisticated responses to Questions 1A and 1B. However, these responses sometimes confused the government as a group or organization with the leader as an individual person. This confusion appeared more frequently among girls than boys, although otherwise there were no gender differences in students' abilities to define government or in the kinds of activities they mentioned when talking about what government does.

The Presidency

The next three questions addressed students' understanding that the President heads our government and is elected to that office from among candidates who meet certain requirements.

Question 2. Who is the head of our government? (If student says President, ask for name.)

Question 3. How did he get to be President?

Question 4. Can anyone be President or only certain people? (Follow up by probing for explanations.)

More than half of the students were able to answer Question 2 correctly by saying the President (49), Bill Clinton (38), or both when asked who is the head of our government. Most of the students who initially said "the President" were able to name Bill Clinton specifically when probed, and all of those who named Clinton also understood that he was the President. The remaining students were unable to respond to the question (23), responded incorrectly by naming George Washington, Abraham Lincoln, or John Kennedy (17) or supplied some "other" response (e.g., the Governor, John Engler, the people) (10).

When asked how the President got to be the President, almost half (44) of the students said that he was elected. However, 30 students were unable to respond to the question and others said that he had become President because he was a virtuous (hardworking, good, truthful, etc.) person (14), because he was a highly competent scholar, speaker, problem solver, etc. (8), or for some "other" reason (he was rich, he signed up for the job, etc.) (12).

When asked who can become President, almost half (43) said anyone who meets the age qualification (although there was some disagreement about what this age might be). In addition or instead, 22 students said that the person must have special qualifications (virtues, education, speaking or decision making ability), 18 said that only certain people qualify but could not say what the qualification requirements are, 15 said that anyone could become President or made no relevant response, 12 mentioned some specific qualification in addition to age (being a lawyer, really wanting the job), and 12 mentioned certain disqualifications (criminals, the elderly, people who already have other jobs, etc.).

In summary, more than half of the students knew that the President is the head of the government and a substantial minority (almost half) knew that the President is elected and knew something about qualifications required of candidates. The students who did not know the answers to these questions usually were able to construct sensible responses to them, guessing past Presidents or the state's Governor when asked who heads the government, and guessing reasonable qualifications (focusing on virtues and competence) when asked who can become President. The following examples from average-achieving boys and girls are representative of the responses from students across the four grade levels.

Kindergarten

Jered

2. George Washington
3. I don't know.
4. Certain people. (OK. So who can be President?) I don't know.

Kate

2. I don't know.
3. Because he was nice to other people, and he did good things.
4. Anybody.

First Grade

Chris

2. Bill Clinton. (What is the name of his job?) To be the . . . President.
3. He worked hard.

4. Anyone, except for little tiny babies that are just born and kids that don't pass college.

Lauren

2. Their boss. (What's the boss's name? Do you know?) No. (Do you know what the job is called?) No. (Do you know who the President is right now?) I forgot his name.

3. He was doing right things and stuff. And he had lots of money or something. (OK, so let's say that there were several people that wanted to be President. How is it decided who becomes President?) The one who would know a lot. And they would kind of make good rules and stuff. (OK, so who would choose?) That person's boss who was the government.

4. Well, kinda certain people. (Who can be President?) Someone who's smart, and they have nice rules and stuff and if they get some ideas from other people, then they just decide to put it together and . . . I don't know. (Well, so who couldn't be President?) Anyone couldn't be President. But, some people do. (Can kids be President?) No. (Why not?) Because they're too young and they have to go to school. (OK. Anyone else that you could think of that couldn't be President?) A piano, and a baby.

Second Grade

Mark

2. Bill Clinton. (And what's his job?) To help the world. Like make the world a better place. (And what do we call Bill Clinton?) The President.

3. People voted for him.

4. Only certain people get picked.

Emily

2. The Governor. Governor Engler. (How did he get to be Governor?) He got elected. (He's the Governor of Michigan. Do we have other governments?) There's another government like in Ohio and in other states. There's a government in London, England. (What about here in the United States?) Maybe there's another government in Washington, D.C. (Have you heard of the United States government?) Yeah. (Who's the head of that government?) The President. (What's his name?) Bill Clinton.

3. He got elected by the people.

4. Certain people because they have to have special talents and have to sort of go through a class that helps them. (What sort of talents do they have to have?) Like doing stuff and making decisions about what the country should do.

Third Grade

Dale

2. The President. (What's the name of the current President?) Clinton.

3. He was elected for being good at certain things, like being good at speeches and stuff and being able to say things and being truthful.

4. Certain people cannot be President because they don't have the main things they need to be, which is truthful, able to make speeches that are pretty good, and you've got to be able to stand up in front of crowds of people, and the last thing is you've got to be ready to help decide if the government can't seem to decide.

Chelsea

2. I don't know. (Well, the head of the government is the President of the United States. Do you know who the President of the United States is right now?) Bill Clinton.

3. I think he signed a paper and they either had . . . if you want to vote, you can either go to a school and you pick and then they draw, and whoever has the most out of the whole country or out of the whole state, that person gets to be the President and I think he has to give a speech and stuff.

4. I guess anyone. (Are there any rules about who can be President?) That you can't disobey the laws that the government makes or hurt any people like kill any people or shoot any people. You can't have drugs. (You were telling me that the people go to a school or something—do the people choose who becomes President?) They have choices on a certain piece of paper and they write their choices. They write one of the choices down that they want and they can write the vice president here.

Grade Level Differences

Older students were more likely to say "the President" or "Bill Clinton" (or both) when asked who is the head of our government, whereas younger students were more likely to be unable to respond or to name past Presidents. In addition, more older students said that the President got to be President by winning an election, whereas more younger students were unable to respond to this question. Finally, older students were more likely to answer Question 4 by saying that anyone who meets the age qualification can become President, whereas younger students were more likely to know that only certain people can qualify but to be unable to identify any of the qualifications. Older students also were more likely than younger students to suggest additional qualifications (be a lawyer, really want the job, etc.) as well as to identify presumably disqualifying exceptions (correctly in the case of criminals but incorrectly in the case of elderly people or people who already hold other jobs).

In summary, the older students were more likely than the younger students to know that the President heads our government, to know the identify of the current President, to know that he had ascended to office by winning an election, and to know that only people who have attained a certain age are eligible to run for President. However, this package of correct information about the Presidency often was accompanied by one or more misconceptions, such as the identification of some age other than 35 as the required minimum, the idea that one can run for President only if one is a lawyer or "really wants the job," or the idea that elderly people or people who already have other jobs are disqualified.

Like the relationships with grade level seen for the person confusion responses to Questions 1A and 1B, these positive relationships with grade level for incorrect responses to Question 4 do not indicate that accurate knowledge possessed in kindergarten or first grade tends to become distorted by second or third grade. Instead, they are part of a larger pattern indicating that the older students were more able than the younger students to generate specific, detailed responses to Question 4, and that these responses included some incorrect elements along with correct ones. Thus, despite some positive relationships that at first appear counterintuitive, all of the significant relationships with grade level for responses to Questions 1-4 are consistent with a pattern of greater knowledge among the older students.

Achievement Level and Gender Differences

The 16 categories for coding responses to Questions 2-4 yielded 10 significant relationships with grade level but only 7 for achievement level and 2 for gender. Six of the 7 achievement level relationships were linear ones. These indicated that higher achievers were more likely than lower achievers to say that the President heads our government, that he was elected to office, and that he must have special virtue or competence qualifications, whereas lower achievers were more likely than higher achievers to identify a past President as the (current) head of our government, to be unable to explain how the President ascends to office, and to be unable to respond or to say "anyone" when asked who is allowed to be President.

The nonlinear relationship with achievement level occurred because lower and higher achieving students were more likely than average achieving students to be unable to respond when asked who is the head of our government. This nonlinear relationship was unexpected (we had expected a negative relationship indicating that the lowest achievers would be most likely and the highest achievers least likely to be unable to respond to Question 2). In addition, its reliability is unknown, and nothing in the correlational analyses or the extant research literature suggests a clear interpretation for it. We are unable to interpret most of the nonlinear relationships that appeared in our grade level or achievement level analyses, for the same reasons. Rather than continue to repeat the explanation for why this is the case, throughout the rest of this report we will simply describe nonlinear patterns without attempting to interpret them (unless we do have an interpretation to offer).

The two significant gender differences appeared in responses to Question 2, where 17 girls but only 6 boys were unable to respond and 23 boys but only 15 girls were able to name Bill Clinton as the current President. There also was a nonsignificant trend in responses to Question 4, suggesting that boys were more likely than girls to know about the age qualification for the Presidency. Like the gender differences and trends seen in responses to Question 1, these data from Questions 2-4 replicate previously reported findings indicating that boys are more interested and knowledgeable than girls about politics and government.

Relationships Among Response Categories

Students who named the President as the head of our government were more likely than other students to also name Bill Clinton as the current President, to say that he was elected to office, to say that he lives and works in Washington, D.C., to give accurate and specific examples in talking about things that the President does, and more generally, to be coded for the maturity set of responses to the interview as a whole.

Students who named Bill Clinton as the President were even more likely to be coded for the complete maturity set of responses to the interview as a whole. This response had particularly strong relationships with naming the President as the head of government, stating that he was elected to office, stating that he lives and works in the White House and in Washington, D.C., stating that the Governor works in the state capitol building, drawing at least one contrast between rules and laws, defining taxes as money paid to the government, saying that local citizens pay for police and fire protection through their taxes, and giving a specific example of something that people who work in the capitol building might do.

An even stronger pattern of correlations with these same variables and with the maturity set of responses to the interview as a whole was seen for responding to Question 3 by stating that the President was elected to office. This response had stronger correlations with other maturity set responses than any other response coded in the interview, indicating that students who knew about Presidential elections tended to know about other political and governmental matters as well.

Students who said that the President got to be President by being a virtuous person were more likely than other students to also mention virtuous behavior in responding to Question 4 (Who can be President?) and Question 10 (What does the President/government do?). Thus, these responses were common among students who viewed government leaders as uncommonly virtuous and benevolent people.

Students who said that only certain people qualify for the Presidency but were unable to name any of these qualifications were more likely than other students to be unable to respond to other questions in the interview, or if they were able to respond, to do so in ways that were typical of the younger students.

Rare and Unique Responses

Question 2: Who is the head of our government?

Many students initially said the Governor or John Engler (the current Michigan Governor). These answers occurred because the question had been intended to refer to the federal level of government but did not state this specifically. Consequently, this confusion was clarified among students who initially mentioned the Governor or John Engler, and their initial responses were ignored in the coding unless further probing indicated that the student thought that the Governor was the head of the entire country. If the student switched to talking about the President upon clarification, coding of his or her answers began at that point.

In response to either the original question or a follow-up asking who is the current President, many of the students named names. All of those who named contemporary politicians correctly named Bill Clinton as the President. However, 17 others mentioned past Presidents, about two-thirds George Washington and the rest Abraham Lincoln, except for one John F. Kennedy.

Kindergarten: The judge; Bill Gates.

First grade: God or someone in heaven; God—Jesus; the boss.

Second grade: The mayor.

Third grade: The secretary.

Question 3: How does one get to be President?

There was a sharp shift between first graders and second graders in responding to this question, with most of the older students immediately saying that the President has to win an election but most of the younger students making other responses (typically focusing on virtue, competence, or other positive qualities). Several students developed scenarios in which the person apprentices for the job (e.g., by being Vice President) and then succeeds to the presidency when the previous President dies or leaves office. Another common scenario, given in response to a probe about what would be done if three people wanted the job, pictured the three people undergoing some kind of examination, interview, or apprenticeship, then being selected for the office by the previous President, by someone else, or by agreement among themselves.

Kindergarten: They sign up for the job; someone who is out of money (i.e., needs a job, so becomes President to make money); people ask for the job and then the people who work for the government pick one of them to be the President.

First grade: The President who is about to die chooses his successor; the President dies and he (presumably the Vice President) becomes President; the President is the person who survives a "war" with his rivals for the job; before Lincoln died, he named Clinton his successor; someone who worked for the previous President and did well in that job runs for President and wins election; the old President chooses his successor; the President is chosen by "the government" (Governor?); each candidate spends a day acting in the job and being observed/mentored by the "President teacher," who then selects one of them; "the government" wanted to see who "worked good and took care of the world better" and then picked him; "the government" chooses the hardest working of the candidates.

Second grade: The Governor or judge would decide who is the next President; "he got it in a speech."

Third grade: Either he is the Vice President or else all of the candidates "practiced" the job but the others found it too hard and agreed that he should be the President.

Question 4: Who can become President?

Most of the students who mentioned age qualifications guessed ages between 30 and 40 (accurately, given that the prescribed age is 35).

Kindergarten: People who are old or who already work at another job are not qualified; people "you can be caring about" are qualified (not explained, perhaps equivalent to stating that the person has to be attractive to the voters); must be male; special people pass certain tests and then get the people to vote for them.

First grade: A person whose brother is the President; people who "pass college;" people who "win the Civil War or something;" people who work in the government and eventually become boss.

Second grade: You have to keep your promises; they have to make a speech telling what they are going to do, and they also have to be 38 years old because younger people would "play around and stuff;" they must be 35 and have lived in the country for at least 14 years; they must be famous people; they have to go to New York and apply for the job, be interviewed, and give a speech making promises (and then keep those promises); people who are important and who really want the job.

Third grade: People who are able to know what to do—not afraid to act; they must be truthful, able to get up in public and make good speeches, and ready to make decisions "if the government can't seem to decide;" important people; those who get elected are those who give things to people, like jobs. In addition to these statements about who is qualified, third graders had many ideas about people who are not qualified: people under 35 and Presidents who already have had two terms; some people are too poor to run; women and people who don't speak English (no mention of citizenship); people who are too old (near death); people who already have been President three times; criminals and drug users; very poor people.

Discussion

Responses to Questions 2-4 indicated that the second and third graders knew much more about the Presidency than the kindergarteners and first graders. Most of them knew that the President is the head of the government, could name the current President, and knew that he was President because he won an election. The younger students tended to be vague or incorrect about who headed the government, more likely to confuse the President of the country with the Governor of the state, and more likely to talk about virtues or other personal qualities than about winning elections in explaining how one gets to be the President. Some of the “virtue’ responses, especially those that refer to working hard, probably flow from the same assumptions that lead young children to equate effort with achievement. That is, research on children’s attributional and motivational thinking has shown that five- and six-year-olds tend to believe that how much one achieves is a direct function of how hard one works, whereas older children take into account other factors such as ability, luck, or assistance from others (Stipek, 1998).

It is noteworthy that although more than half of the students did not realize that Presidents are elected, none of them thought that the title was hereditary. Instead, they assumed that the new President would be chosen by the old President or other governmental leaders, typically on the basis of competence and other evidence of deservingness displayed in prior government service. Thus, even young children who do not understand much about our form of government have already learned that our country is neither a monarchy nor a totalitarian state, and have been conditioned to view it as a meritocracy.

The third graders showed some exposure to instruction about eligibility for the Presidency. They were much more likely than younger students to identify factors other than age that might disqualify a person from running. Some of these were accurate (criminality, prior terms in office). Others were technically inaccurate but understandable given observable base rates (no women or poor people).

Many of the responses naively assumed that Presidents would display unusually high virtue and benevolence, and various confusions appeared in individual responses (e.g., only males can become a President). However, there was no evidence of widespread, clear-cut misconceptions. The differences between inaccurate and more accurate responses were primarily differences between guesswork and accurate knowledge, not differences between crystallized misconceptions and accurate knowledge.

Kings and Queens

Question 5 asked students to distinguish between Presidents and kings or queens, particularly on the issue of how one ascends to these positions.

Question 5. Some countries have kings or queens instead of Presidents. How are Presidents different from kings or queens? (If necessary, ask **"How does a person become President? . . . How does a person become king or queen?)**

Students' responses to the two parts of this question were coded under the headings of Question 5A (How are Presidents different from kings or queens?) and 5B (How do kings or queens get the job?). Responses to Question 5A indicated that 16 students were unable to contrast Presidents with kings or queens, but the remaining 80 students gave responses that clustered in five categories. The most common responses were that kings and queens wear crowns, jewels, wigs, royal robes, etc. (25), live in castles or palaces (21), or rule all by themselves or as despots with dictatorial powers (20). Less frequent responses were that kings and queens live a life of luxury, have servants, etc. (11), or have mostly ceremonial jobs (7). Note that none of these common responses included reference to elections or inheritance. Instead, they focused on the symbols of luxury and power associated with monarchs, especially in children's literature and videos.

The responses to Question 5B indicated that 31 students knew that kings or queens ascend to the throne through marriage or inheritance, whereas 15 thought that they qualified for the job by being rich or owning a castle, and 24 gave "other" responses (such as that they are greedy or are not elected). In general, the students' responses to Question 5 focused on their images of kings and queens as rich people living in luxury and exercising power, not on contrasting kings or queens with Presidents. The following examples from average-achieving boys and girls are representative of the responses from students across the four grade levels.

Kindergarten

Jered

> 5. The king and queen are royalty. (How does a person become a king or a queen?) I don't know. (Is it any different than the way a President gets to be in charge of the country?) Yes. (How is it different?) I don't know.

Kate

> 5. Because Presidents don't boss people around. (How does a person become a President?) Because it helps the state that it comes from. (And how does a person become a king or a queen?) Because other people think that they could be a queen or a king.

First Grade

Chris

> 5. Queens and kings get all this royal stuff and the President doesn't get all this royal stuff . . . he doesn't get jewels and stuff to wear. (So what kind of royal stuff are talking about?) Like gold, jewels, beads, a lot of money. (So why do kings and queens get all that royal stuff and Presidents don't?) Because kings and queens are a big ruler across the country and then they make up all the rules and stuff. (So how is that different from Presidents?) Presidents make up the rules and they get to ride in a helicopter every day. (Presidents make the rules too. Why couldn't they say they should get all the royal stuff?) I don't know. (How does a person become a President?) Work very hard and you've got to be very, very smart, like I am. (OK, let's say there are lots of people who work hard and are very smart. Say there are five people, and they all want to be President. How is it decided who gets to be President?) I don't know. (How does a person become a king or a queen? . . . Do you have any idea?) No.

Lauren

5. Well, they have different kinds of blood, and they're people who are nice and stuff. And it doesn't have to be a certain person but it has to be a certain kind of blood. (What sort of blood does the President have?) Normal blood. (And what sort of blood does a queen or king have?) Different. (What makes it different? . . . Do you know?) No. (OK, well, is there anything else, besides blood that makes them different?) Their mom was one. That makes them one too.

Second Grade

Mark

5. Because there's two people. Like there's a boy that runs some of the places. And then there's girls that runs the other half of it.

Emily

5. Presidents are sort of the head of the country of the United States, and kings and queens are more royal and they have crowns and they don't get elected—they just are born to be that from a royal family.

Third Grade

Dale

5. Presidents aren't asking people for gold or things, and kings are sort of a little bit greedy because they like to get lots of gold and stuff, so they usually send people out, and the President just cares for the people instead of telling them to do things. (How does a person become a President?) They have to be good at the four main things [See Dale's response to Question 4.]. (But how does he becomes President? Are there lots of people who are good at those things?) If they meet all those [i.e., if they are good at the four main things], then the government sees them and picks a couple of people and the other people that they didn't pick would probably sit as vice presidents and the rest of them, they had to decide on which is President and then they pick a vice president, whichever does the very, very best at all these things. (How does a person become a king or a queen?) Basically, they sort of seem nice at first and they're really nice and they give out gold sometimes, and then they usually get elected for being like that.

Chelsea

5. Kings and queens have a castle and Presidents don't. Kings and queens can be richer than the President because anybody can be President if they just tried. (So how does someone become a President?) The same way as the government [Governor]. You have a piece of paper of choices and you put the one that you want. You just draw

> the name and keep on drawing. Whoever has the most names in it wins and gets to be the President. (OK, so people vote for the President. How does a person become a king or a queen?) Maybe a king and queen can have lots of money so they can hire servants and then they can be king and queen. (Can all rich people become the king or the queen or just a particular person?) I guess anyone can be a king or a queen.

Grade Level Differences

Linear relationships with grade level indicated that more younger students were unable to draw comparisons between Presidents and kings or queens, whereas more older students said that these monarchs rule all by themselves or as despots. Also, more older students said that monarchs ascend to their thrones through marriage or inheritance, whereas more younger students gave "other" responses.

There also was a nonlinear relationship with grade level that occurred because first and second graders were more likely than kindergarteners or third graders to talk about crowns, jewels, wigs, robes, or other symbols of royalty. This curvilinear relationship may reflect increasing and then decreasing exposure to and interest in fairy tales and fanciful videos involving kings and queens as children progress through the K-3 grade range. In general, the grade level relationships for Question 5 indicate that the older students possessed more realistic information about kings and queens than the younger students did.

Achievement Level and Gender Differences

The nine categories for coding responses to Question 5 yielded five significant relationships with grade level but only one with achievement level and none with gender. The sole significant relationship with achievement level occurred because higher achievers were more likely than lower achievers to say that kings and queens live in castles or palaces. There also was a nonsignificant trend indicating that higher achievers were more likely than lower achievers to say that kings and queens ascend to their thrones through marriage or inheritance.

Relationships Among Response Categories

Most of the categories for coding responses to Question 5 failed to show interesting relationships with categories for coding responses to other questions. The only exceptions were correlations indicating that stating that kings or queens rule as despots and stating that they ascend to their thrones through marriage or inheritance were correlated with other categories that comprised the maturity set for the interview as a whole.

Rare and Unique Responses

Some students assumed that kings and queens are elected. Other statements about kings and queens were as follows.

Kindergarten: Ride horses; are royalty (said by six students); fought wars and had knights (one of several responses picturing kings and queens as people from the past); were from the "old-fashioned days;" have to look pretty and know a lot and have a castle; get the job by being good and asking for it; get the job by getting good grades; boss people around and get the job because other people think they should; had knights; are famous. In addition, one kindergartener said that both Presidents and kings and queens are rich, but kings and queens have castles whereas Presidents have "a boat fleet."

First grade: To get the job, a queen must be beautiful and a king must be a good king, not a bad king; kings and queens have a special kind of blood (apparently thinking of blue blood); kings and queens are from the past. In addition, several first graders drew comparisons: kings and queens own more than one country, but the President owns just one; the President gets to ride in a helicopter every day [contemporary image]; kings and queens have big castles but George Washington only had a medium castle; and kings and queens have knights to fight dragons, but the government [Governor] doesn't because there are no dragons in Michigan.

Second grade: Kings and queens are famous; kings and queens are royalty; the queen gets the job if people think she's pretty; kings and queens see their children all the time, but the President is too busy to see them much; kings and queens are heads of a state, but the President is the head of a country; kings and queens have to be rich "to get elected"—maybe they worked a long time to get rich. If they were strong, they could have worked as lifters at Builder's Square or Home Depot.

The following second grader's response is quoted at length because it incorporates several common themes: "Well, kings and queens kind of get treated more royal and they live in something like the White House but it's better—it's a castle, and the President lives in the White House which is pretty big, but normally kings and queens live there forever, but Presidents only live there for about six or five years. (You said the kings and queens live in the castles until . . .) Until they die. (. . . until they die and the Presidents live in the White House for a short time. Why is that?) Well, you know, I really don't know that one. (You told me that kings and queens get treated more royally. Can you tell me more about what you mean by that?) Well, what I mean by that is they have lots of servants and they have different food to be served and they might have bigger tables and their castle is like bigger and it's made out of bricks and stuff. (Why do you think the kings and queens get treated differently from the President?) Well, right now, the President isn't being very good, but normally the kings and queens aren't good because they try to take over places, so they get treated more royally and they get filthy rich and they say, "I want to take over the world." Like the king and queen of England wanted to take over America. (How do kings and queens get filthy rich?) Well, I don't know. They probably do nothing. (You said that kings and queens want to take over the world. How do they do that?) Well, they get their army up and they gain more people so they can like take over every state, country, continent. (How does a person become President?) By getting elected and giving a good speech. (So how do people become kings or queens?) Probably because one of their parents or grandparents were rich and they passed down their richness and they used some of their richness to build the castle, and then they had servants. (So anyone who has lots and lots of money is a king or a queen?) No, not everybody because some people can be richer than others."

Third grade: Kings and queens keep the same last names but Presidents have different names; kings and queens are rich people who fool others at first by giving out gold and acting nice, but they "get greedy" once they get the throne; kings and queens rule whole continents, not just countries; kings and queens aren't always being bothered by questions from people and work that they need to do, like Presidents are; kings and queens make taxes, but not Presidents (this was one of several responses apparently influenced by what students had heard about King George III).

Discussion

Most students' responses focused on what they knew about kings and queens rather than on comparisons of kings and queens with Presidents. Most of the responses reflected images developed from children's literature (especially fairy tales) and videos about kings and queens, although several reflected exposure to disputes over taxes between King George III and the American colonists. A few students thought that queens must be beautiful and a few others thought that kings and queens existed only in the past.

Categories for coding responses to Question 5 did not show many correlations with categories for coding responses to other questions, which underscores our interpretation that the students' ideas about kings and queens focus primarily on their roles as heroes or villains of fairy tales and videos, not on their roles as political leaders. Most students had more to say about castles, crowns, royal robes, and other symbols of luxury than about the exercise of power or leadership, and those that did address the latter topic did not describe kings or queens as benevolent in the ways that they typically described Presidents. The minority of students who did draw comparisons often depicted kings and queens as basking in the trappings of inherited luxury, while depicting Presidents as working long hours for the good of the country during their limited time in office. Grade level and especially achievement level differences were less obvious in response to Question 5 than in responses to most other questions, and gender differences were nonexistent.

Candidates and Elections

Questions 6-9 addressed issues relating to candidates, political parties, and elections. The questions focused on what the students knew about voting and what characteristics they would look for in Presidential candidates.

Question 6. Some countries are run by people who were not elected. How did these people get to be in charge of their governments? . . . Do you know any countries that are run by people like that?

Question 7. In our country, the President and other government leaders are elected by voters. Who is allowed to vote? (If necessary, ask: **Can anybody vote, or just some people?**)

8. In elections, the voters are usually choosing between Democrats and Republicans. How are Democrats and Republicans different? . . . Like in the last election, why did some people vote for Bill Clinton and other people vote for Bob Dole?

9. In an election, why do people vote for one candidate (If necessary, one person) **rather than another? . . . What would you look for in a candidate for President? . . . If you could vote for President, what qualities would you be wanting in a candidate?**

Question 6 was one of two questions in this cluster that did not elicit enough substantive responses to analyze statistically. Most students could say nothing at all about countries run by people who were not elected, and the rest could only make guesses, such as that the ruler was picked by the previous ruler. When asked the follow-up question about countries that are ruled in this manner, most students again were unable to respond and the rest simply guessed place names. Several mentioned China, but most of them mentioned it along with several other names as part of general guesswork, and the few that mentioned it alone were not able to say anything specific enough to establish that they understood anything about how China is ruled. Other guesses included Egypt and Iraq, but again without any evidence of knowledge about how these countries are ruled. Even the third graders lacked clear images of totalitarian countries and how they differ from democratic countries.

When asked who is allowed to vote in our elections, five students couldn't respond and another 17 said anyone or everyone. Of the remaining students, 46 said everyone who is old enough, 10 said that some people old enough to vote nevertheless are not allowed to vote (but couldn't explain further), 6 said that only citizens or residents can vote, and 20 suggested "other" qualifications or exceptions (only those who register can vote, the President and criminals cannot vote, etc.). These responses indicated that most students' knowledge about voting eligibility was limited but accurate as far as it went, with almost half of the students knowing about an age qualification.

Question 8 asked the students to compare the Democratic and Republican parties or Presidential candidates (Clinton and Dole). This was the second question in this cluster that failed to elicit enough substantive responses to allow for statistical analyses. A heavy majority (85) of the students were unable to respond or made only vague and general statements (e.g., they don't look alike, they're from different parties, some are right and some are wrong). Of the 11 students who did generate substantive responses, 7 made valid or defensible distinctions (e.g., Democrats want to raise taxes and help the poor but Republicans are rich people who want to keep their money), and 4 made invalid or questionable distinctions (e.g., Democrats are bosses and Republicans are underlings who want to become bosses).

When asked about qualities that they would look for in a Presidential candidate, 21 students were unable to generate substantive responses and another 20 named individuals rather than personal qualities (including not only Bill Clinton but Abraham Lincoln and Louis Armstrong). The remaining students identified at least one, and often several, desirable qualities. Not surprisingly given their inability to respond to Question 8, these responses to Question 9 focused on generic virtues and competencies rather than on particular political philosophies or policies. A majority (50) of the students mentioned generic virtues: The candidate should be nice, kind, helpful, not greedy, not bossy, etc. In addition or instead, 21 students mentioned general competence (smart, educated, experienced, knows the job, good leader, good problem solver, etc.), 21 cited generic aspects of leadership vision or policies (has good ideas about needed laws or ways to improve the country, etc.), 13 said that the person should be honest or trustworthy, 6 said that the person should treat people fairly or with respect, and 23 mentioned "other" qualities (happy, will do what I ask, a female, helps the poor but without raising taxes, pleasing personality, etc.).

The students had more difficulty with this cluster of questions than any other. However, their responses usually were accurate as far as they went. Incorrect elements typically reflected guesswork in the absence of knowledge rather than commitment to crystallized misconceptions. The following examples from average-achieving boys and girls are representative of the responses from students across the four grade levels.

Kindergarten

Jered

6. They snuck in. (They snuck in. How did they sneak in?) They broke in. (OK, do you know any countries that are run by people like that?) No.

7. Everybody. (Now, when you say everybody, do you mean only adults or adults and kids, too?) Adults and kids.

8. I don't know. (OK, like in the last election, why did some people vote for Bill Clinton and other people vote for Bob Dole?) Because they don't like the one. (So why do you think that they would like one more than the other?) Because the one that they really liked is nicer.

9. Because everybody votes for one. (What would you look for in a candidate for President?) I don't know. (OK. What would you want that person to be able to do?) Help.

Kate

6. Because they wanted to, and they didn't care if anybody else cared. (Do you know any countries that are run by people like that?) No.

7. The President and the other people that helped the place that we live in. (Can anybody vote or just some people?) Everybody can. (Can you vote for the President?) Yeah.

8. I don't know. (Like in the last election, why did some people vote for Bill Clinton and other people vote for Bob Dole?) Because they liked two different people.

9. Because they need to choose the person that they want to be President. (If you could vote for a President, what qualities would you be wanting in a candidate?) The President who was the nicest to the place that we live in.

First Grade

Chris

6. Because they didn't have any other job that they wanted to do. (What if the people in the country didn't want that person to be in charge of the government?) They could vote. (Do you know of any countries where they don't vote for president?) No. (If they're not elected, how do they get to be in charge? . . . Do you know?) No.

7. The other government people. (OK, so people in the government. Are there any other people that can vote?) I don't know.

8. I don't know what Democrats and Republicans are. (Well, like in the last election, why did some people vote for Bill Clinton and other people voted for Bob Dole?) Cause they wanted that person to be head of the continent. (Why do you think they would want that person to be in charge?) Because he was nice and he . . . I don't know what else.

9. Because that person might just be faking it and he might be a robber and then he might steal all the stuff. (What would you look for in a candidate for President?) I would be looking for a person that was nice, a person that would let you stay at their house if you didn't have a house, and give the other people food if they didn't have food.

Lauren

6. Mmm . . . they had the courage to be, and they used to be President and then they moved on to be government. (OK. What did they do?) They tried out for it. (Well, there are some people who get to be in charge of their governments without anyone else choosing them. How could they become in charge of their government if no one else chooses them? What would they have to do?) They would have to vote. (Do you know of any countries that are run by people like that?) No.

7. Anyone. (Can kids vote?) At school they can, but not at adult ones. (Why not?) Because they don't have any reason to.

8. They vote different, and they have the courage to say "I think this" or something. (So like in the last election, why did some people vote for Bill Clinton but other people voted for Bob Dole?) Um . . . Bill Clinton isn't that good. And maybe Bob Dole was. (OK, what sort of things would make Bill Clinton not good . . . so that people wouldn't want to choose him?) Um . . . he doesn't make good rules. (OK.) Well, I think he does, but I don't know.

9. They like one person better. (Why would they like one person better than another one?) Because they don't like his rules or something. (If you could vote for President, what qualities would you be wanting in a candidate?) A person who makes good rules. (What sort of rules would you like?) Whoever has been having fights and stuff, they should just get it over with. (OK. What else did you want you the President to be like or be able to do?) Be nice to people who are poor and they can't treat someone like they're garbage.

Second Grade

Mark

6. I'm not sure. (Do you know of any countries that are run by people like that?) No.

7. Certain people. (Can anybody vote, or just some people?) Just some. At this one place. Like at this one big building like some, like 10 people get to go in there and vote for them. (What about in elections for the President, can anybody vote or just some people?) Just some people. (Can children vote?) No.

8. I'm not sure. (Why did some people vote for Bill Clinton, but other people voted for Bob Dole?) Because some people wanted Bill Clinton to be the President and some other people wanted the other guy.

9. Because maybe they think the other person is better. (If you could vote for President, what sort of person would you want to be the President?) If George Washington was still alive, I'd want him to be President. (Why?) Because he was the first President and I think he was really good at it. He also helped . . . like if somebody was dying, he either went to them to see what was wrong with them, or he called somebody on the phone. (OK, well, George Washington isn't a possibility, so we have to think of someone new to be the President. What sort of person would be good at that?) A person that helps people a lot and they like battle if somebody else can't.

Emily

6. They probably ask somebody. (Do you know of any countries that are run by people like that?) Maybe Australia.

7. Eighteen or older people, and in the old days women weren't allowed to vote.

8. Democrats want to give money to the poor, but they raise taxes, and the Republicans are the more richer people who want to save their money. (That's an interesting explanation. How did you know that?) I just knew that.

9. Because they think that's the best one that would be elected. (If you could vote for President, what qualities would you be wanting?) Kindness, not raising taxes, but giving some of your money and other people's money to the poor and lowering taxes, but still keeping your things. (What other qualities should a President have?) They would be very good at something, like have goals to success. (Do you think that men as well as women or women as well as men can be President?) Yes. The next election, I think Bob Dole's wife is going to try to run for President and that will be the first woman President.

Third Grade

Dale

6. They just get in charge because they're just the best at doing that and there just isn't any other good things like that, and no one really thinks they should be elected, but the government sort of thinks they should, so they sort of let them not be President and sort of be President of only the government which is President over the people of that city or country. (Do you know any countries that are run by people like that?) I think Indiana is one of them. Isn't Hawaii one of them? I think.

7. Basically the highest people of certain kinds of things, like my mom is in the Chamber of Commerce, and if she was the highest . . . they pick like a couple of the highest people and they let them vote, and the people that are a little bit lower, they all vote and they tell the higher people what they should vote and the higher people decide what they're going to vote, and then they all spread out into different kinds of votes for each other, and then they go off and vote. (So does that mean anybody in the United States vote for the President?) Well, not everybody. (Why not?) There's some people that just aren't fit for voting and they just say, "Oh, I know how to vote," and they go up and they just vote for anything. (But are they allowed to vote?) Only sometimes are they allowed to vote, if they're good at it and if they follow the rules of it and the rules are you choose your choice and if everyone votes for President and you don't want that, then you don't have to vote for President. (Are you allowed to vote?) No, little kids aren't allowed to vote—only parents are. (What if someone doesn't have kids—can they vote?) Sure. I think there's some age you have to be—like 18 or up—to vote. You've got to have a lot of guts to hold that stick up high and say a number because you'd better be willing to take that vote as a vote.

8. Democrats are usually people who are sort of like bosses but not exactly, and the others are not the full boss. They're not as high as the boss but they're a little lower, and they're trying to work up to that. (Why did some people in that last election vote for Bill Clinton but other people voted for Bob Dole?) Probably because Bill Clinton seemed to be more trustful in things and it must have sounded to them like they should

trust him and vote for him, and the other people voted for the other person probably because they just had a different idea and thought that having the opposite . . . well, he was still a good President but they just thought he was a little opposite from normal and so they liked opposite from normal and they decided to vote for him.

9. I'd basically look for a trustful-looking person, and I don't care how old that person is, I'd like a President that's trustful, helpful, and respectful to the government and people.

Chelsea

6. Maybe they're the vice government or they're just helping the government [Governor] because maybe he's sick. (Can you think of any other ways that someone can become President without getting elected?) No. (Do you know of any countries that are run by people like that?) No.

7. Anybody who is an adult. (How old do you need to be to be able to vote?) I think maybe 20 or 19 or older. (Are there any rules besides being an adult about who can vote?) Kids might be able to vote for their mom and dad because their mom and dad told you what one they want and you could just vote for it. I don't think they can vote any other way.

8. I don't know. (Like in the last election, why did some people vote for Bill Clinton and other people vote for Bob Dole?) Because maybe some people thought Bill Clinton was a better man than Bob and some people thought that Bob was a better person than Bill Clinton and Bob would help everybody and Bill Clinton wouldn't, or Bill Clinton would help people and Bob wouldn't.

9. Maybe because they think one of them is better than the other. (What do you think would make them choose one person over the other?) Because they would think who could help them better or who they think is a little bit nicer than the other one. (What would you look for in a candidate for President?) If he helps people and not do drugs and if he obeys the laws and if he's really nice almost every day and makes laws that he can obey too.

Grade Level Differences

Data are shown in Table 1 for the two questions in this cluster (7 and 9) that elicited enough responses to analyze statistically. The data for Question 7 indicated that more of the older students said that everyone who is old enough can vote or that only citizens/residents can vote, whereas more younger students were unable to respond, said that anyone/everyone could vote, or cited "other" qualifications or exceptions (many of which were incorrect). The data for Question 9 indicated that younger students were more likely to be unable to respond to the question or to name a specific individual rather than a personal quality in talking about desirable qualities of candidates, whereas older students were more likely to be coded in one or more of the six categories of specific qualities mentioned (generic virtues, honest/trustworthy, competence, vision/policies, treats people fairly/with respect, or "other"). Thus, the responses to these two questions showed strong and consistent grade level differences indicating that the older students had considerably more to say than the younger students about who is allowed to vote and about desirable qualities of presidential candidates.

Substantive responses to Question 6 were made by two kindergarteners, three first graders, eight second graders, and four third graders. The nearest approximations to accurate responses were statements by two second graders, one who had heard on the news that China "has been doing bad" and another who guessed that in countries where the leaders are not elected, the "Governor" chooses his successor. No student said anything about inheritance, military coups, dictatorships, etc.

Of the seven valid or defensible distinctions between Democrats and Republicans made in response to Question 8, none came from kindergarteners, one from a first grader, two from second graders, and four from third graders. In general, strong and consistent grade level differences were observed in the students' responses to Questions 6-9, but within the context of very limited knowledge about the topics addressed in these questions.

Achievement Level and Gender Differences

The 13 categories for coding responses to Questions 7 and 9 yielded 12 significant relationships with grade level but only 4 with achievement level and 1 with gender.

Achievement level relationships for Question 7 indicated that higher achievers were more likely to say that everyone who is old enough can vote but lower achievers were more likely to suggest "other" qualifications or exceptions to voting eligibility. In response to Question 9, higher achievers were more likely to mention competence as a desired quality of a candidate, whereas lower achievers were more likely to mention "other" characteristics. Given that many of the "other" responses to these two questions were invalid or at least questionable, all four of these significant relationships with achievement level indicate that the higher achievers had more or more accurate things to say than the lower achievers.

The lone significant gender difference appeared because 14 boys but only 6 girls named an individual (Clinton, Lincoln, Armstrong, etc.) when asked what they would look for in a candidate for President. In combination with nonsignificant trends indicating that girls were more likely than boys to mention specific desired qualities in Presidential candidates, the gender differences for Question 9 contrast with earlier noted gender differences because they indicate that the girls responded more successfully to this question than the boys did.

Relationships Among Response Categories

The only noteworthy intercorrelations involving categories for responses to Question 7 were those indicating that the "everyone who is old enough can vote" response was part of the maturity set for the interview as a whole. Students who answered Question 9 by naming a person instead of a desired personal quality in a candidate were more likely than other students to name past Presidents in response to Question 2 (asking who is the current head of our government). These students also were more likely than other students to answer Question 22 by giving examples of rules or laws or saying something accurate about them but not directly contrasting them (as the question called for). These sets of relationships suggest that students who made these responses, rather than saying "I don't know" when unable to answer the specific question asked, drew on what they did know to say something relevant to the larger topic to which the question related. This response style was seen more frequently among younger and lower achieving students.

Students who mentioned honesty or trustworthiness as a desirable quality of a Presidential candidate were more likely than other students to name Bill Clinton as the current head of our government, to say that kings or queens rule all by themselves or are despots, to also identify competence as a desirable quality in a presidential candidate, and to be coded for several of the responses included in the maturity set.

Responses to Question 9 that emphasized competence or vision/policies were part of the larger maturity set of responses to the interview as a whole. Within that, students who mentioned competence as a desired quality of a presidential candidate were more likely than other students to say that the government runs the country and solves problems and to talk about solving problems in describing the activities of the President and the Governor. They also talked about hard work and daunting responsibilities as negatives associated with the job of President, and in answering other questions, depicted government as people dedicated to maintaining an orderly society by making good laws and policy decisions. In general, then, a theme running throughout many of the responses of these students was the idea that competent people are needed in leadership positions to keep things running smoothly.

Similarly, within the larger maturity pattern, responses emphasizing good vision and policies relating to needed laws or ways to improve the country were particularly associated with responses depicting the government as making and enforcing laws, the President and

Governor as solving problems, and the presidency as an office with daunting responsibilities but also the power to make laws, issue orders, and make things happen. Thus, students who made these responses were particularly aware of the potential power of political leaders to affect people's lives, so it is not surprising that they mentioned desirable vision or policies as qualities they would look for in a presidential candidate.

Rare and Unique Responses

Question 6: Countries whose rulers are not elected.

As noted previously, few students were able to say anything at all about countries run by people who were not elected, and no student said anything about inheriting the throne or political office, about military coups or dictatorships, or about totalitarian government.

Question 7: Who can vote?

Some students thought either that only certain specially chosen or qualified people could vote (but could not explain why they were chosen or qualified) or that certain people would not be allowed to vote (but could not explain who or why). In addition, some students thought that only the Governor, king, or President could vote (6 kindergarteners, 4 first graders, and 2 second graders). Most of the other responses fit into the coding categories, except for the following.

Kindergarten: Parents can vote but not other adults who do not have children.

First grade: Only people who work for the government vote; presidential candidates are not allowed to vote.

Second grade: Voters must be old enough and have identification (elaborates that you have to be old enough because younger people might think "I'll vote for both of them" or be too short to reach the voting stands).

Third grade: Government workers are not allowed to vote; the President cannot vote; only people who can read and write English can vote; voters are those who follow the rules and are good at it—some people "just aren't fit" for voting.

Question 8: How are Democrats and Republicans different?

Only 11 students generated substantive responses that spoke to this question, although noteworthy responses not directly germane to the question are also included in the listing below. Seven of the comparisons between Democrats and Republicans were defensible in varying degrees, but none were as specific as the response of the last second grader quoted.

Kindergarten: They wear different clothes; they shouldn't have voted for Clinton because he was telling those bad lies.

First grade: Republicans dress real fancy; they vote differently and have the courage to say what they think.

Second grade: One likes the President and one likes the other guy; Democrats steal and kill but Republicans are nice; Democrats work for the President but Republicans are "just people" (one of several responses indicating awareness that the Democrats were in power but being unclear about where the Republicans were or what they were doing); there are more Democrats than Republicans, and a lot of people think that Republicans are rich but Democrats are "a little bit poor" (went on to say that she heard this on a show and she doesn't know which she is); Democrats want to raise taxes and help the poor but Republicans are rich people who want to save their money.

Third grade: The Democrats have the President to take care of them, but the Republicans just watch, or maybe they can be governors; the Democrats are helpers for the President; the Democrats are the top bosses and the Republicans are people who are trying to work their way up to be the top bosses; the Republicans are good people but the Democrats are bad people who might shoot somebody and lie about it.

Question 9: Desirable qualities of a presidential candidate.

This question produced quite a few rare and unique responses, of which the most frequently mentioned trait was the ability to run an army or lead the country in war (mentioned by four students).

Kindergarten: Happy.

First grade: Planting trees, picking up litter and stuff; helping our world to be clean; able to go to war; strong and good leader of army; not littering; would do what I asked.

Second grade: Healthy, famous like Louis Armstrong; they could battle if someone else can't; wouldn't allow people in other countries to shoot people; would make good rules and wouldn't let people break them; a girl; how rich they are; would reduce the price of Pokemon cards. In addition, two second graders generated "not someone like Clinton" responses. One said that the presidential candidate should be someone who would be a good army leader and not Clinton, because "he's done many bad things this year, like selling a recipe for nuclear bombs to China, so they could start bombing anytime." The other said that the candidate should like books, let people be free (not allow slavery), help children (let them be adopted away from abusive families), build more cities, and not be like Clinton who "has been greedy and not taken good care of his family. In his interview, he promised he would stay with one wife, but he started cheating. He's about to go to jail, I hope."

Third grade: Would keep the roads in good repair; would help the poor and homeless; would have a good personality; keep their promises; not lying to the wife (laughs); does not take drugs, could help his supporters better (than the other candidate could), and makes laws that he can obey too; wouldn't vote for someone who promised to give away more stuff (TVs, radios) than he could deliver. Finally, one third grader said that she would judge the candidate by his name and his looks and that he should be "like a businessman" and have some humor but not too much, and another said, "I would look to see if there's bodyguards, like they tried to do lots of bodyguards against Martin Luther King . . . They would need to learn a lot—they'd probably have to cut down the cherry tree, just like what's his name."

The following third grader is quoted to illustrate the idealism that typified most responses:

"Because probably . . . maybe they like their personality better or maybe they think what they're going to do for the country is better than what the other guy would do. (What do you think people are looking for when they vote for President?) Like he's going to help our country out and make some right decisions. (Anything else?) No. (What would you look for in a candidate for President?) Like if he helps out the country—like if something's wrong, he'll go there and try to help people out with some of their problems and stuff. (If you could vote for President, what qualities would you want in a candidate?) How kind he is and if he likes and respects the country and stuff, respects other people. (Anything else?) Like if he could make something different out of the country—something good.

Discussion

Most students could not respond when asked about countries ruled by people who were not elected, and none of those who did respond were able to say anything about monarchies, dictatorships, totalitarian forms of government, or any other alternatives to our own representative democracy (about which they had only limited knowledge as well). These findings fit well with earlier findings indicating that primary-grade children do not yet have clear concepts of nation-states and the political structures and offices involved in governing them. Instead, their images of political leadership focus on benevolent parental figures assisted by "helpers." In contrast, almost all of the students were able to say something about who was allowed to vote in our elections, with almost half mentioning an age qualification and smaller numbers mentioning other qualifications or exceptions. Most of these responses were accurate as far as they went, although 12 students thought that only the governor, king, or President could vote and a few thought that the President or other governmental workers were not allowed to vote.

Only 11 students were able to say anything substantive about Democrats and Republicans beyond versions of "they think differently." Most of these responses were based either on the image of Republicans as rich people or on knowledge that the Democrats (Clinton administration) were currently in power. Two responses depicted Democrats as criminals—bad people prone to "steal and kill" or "shoot somebody and lie about it." Several others reflected very negative images of Bill Clinton. Although infrequent, these responses are worrisome. They suggest that the "argument culture" (Tannen, 1998) that has typified our political dialogue in recent years, and more specifically the personal vilification directed at

President Clinton prior to and during his impeachment, have filtered down to children in highly emotional and counterproductive forms.

Additional (although fortunately less extreme) examples of this phenomenon could be seen in the rare and unique responses to Question 9, concerning desirable qualities of a presidential candidate. More typically, however, the qualities emphasized in the responses tended to focus on generic virtues (nice, kind, helpful, not greedy, not bossy, etc.) and the more specific traits of honesty and competence. However, 21 students mentioned the candidate's vision or policies, as part of a larger pattern of responses indicating that they were among the most sophisticated students with regard to knowledge about politics and government.

Overall, grade level differences were unusually strong and consistent and responses to Questions 6-9, but within the context of very limited knowledge about some of the topics addressed. Most of the students still assumed an orderly society run by benevolent leaders, although some of the older ones were beginning to understand issues associated with political power and competing agendas, and a few had begun to crystallize these around attitudes toward political parties. There were few indications of commitment to clear misconceptions, although many students were confused about qualifying or disqualifying criteria that determine eligibility to vote in elections. The few significant relationships with achievement level all favored higher achievers over lower achievers, and the single significant gender difference favored the girls (in contrast to the pattern seen in responses to previous questions).

Activities of the President and the Federal Government

Question 10 addressed students' knowledge about the identity, location, and activities of the President specifically and the Federal government generally.

10. Our President right now is Bill Clinton. Where does he live and work? . . . What does he do? . . .What are some things that the United States government does?

One-fourth (24) of the students (23 of them kindergarteners or first graders) were unable to say where the President lives and works. Of the remaining students, majorities were able to say that the President lives in the White House (52) and works in Washington, D.C. Smaller numbers of students gave less specific (big house, President's house) or incorrect (capitol building) names for the President's residence (9) or identified some location other than Washington, D.C. as the place where he lives and works.

Responses to Question 10B (What does the President/government do?) mostly focused on the President individually rather than the government generally. These responses initially were coded into seven categories: doesn't know/no relevant response (21), generic virtuous behavior (working, doing good, helping people, etc.) (15), generic office work (reading, writing, having meetings) (19), generic problem solving (says that the President solves problems without explaining further or giving examples) (28), unrealistic examples of problem solving (stopping riots, cleaning up things, acting as a judge or policeman, setting broken bones, etc.) (12), realistic examples of problem solving (making decisions about foreign affairs or warfare, recommending or enforcing laws, making policy speeches, vetoing laws, etc.) (17), and "other" (trying not to get assassinated, keeping the country united, etc.) (14). Thus, although the question produced a variety of responses, only 17 of these responses included realistic examples of things that a President might actually do.

Some of the initial codes were combined into two secondary coding categories. First, the 28 students who gave generic problem-solving responses and the 17 who gave realistic examples of actual problem solving that a President might engage in were given an additional code that identified them as students who had emphasized solving problems in describing what Presidents do. Second, students who mentioned virtuous behavior (all of those coded in Category 1 plus a few coded in Categories 4 or 6) were assigned an additional code identifying them as students who made "virtuous behavior" responses. The following examples from average-achieving boys and girls are representative of the responses from students across the four grade levels.

Kindergarten

Jered

10. I don't know. (OK, what does he do?) He owns places. (OK. What are some of the things that the United States Government does?) I don't know.

Kate

10. He has a big house, and he works in it. (Does that house have a name?) I don't know. (What else does he do?) He works on important paper. (What are some of the things that the United States government does?) He does what he needs to do for his country.

First Grade

Chris

10. He lives at the White House and he works at the White House. (Do you know where the White House is—what city it's in?) Washington, D.C. (What does President Clinton do?) He works for the government. (Do you have any idea what sort of work he does?) He makes up all the rules and he might be a police officer. They can still be the government—they can still be that person if they wanted to be—if they still wanted to have another job. He might be an officer and he might be able to arrest people and stuff. (What are some of the things that the United States government does?) I don't know.

Lauren

10. In . . . New York. (In New York OK. And what does he do?) He . . . tries to think of stuff that's good and so people don't get mad and stuff. (What else does he do?) Have rules that some people don't like. (What are some of the things that the United States government does?) Makes people vote . . . and he makes some people not vote because they didn't do anything wrong and some people have to say what's

right, and the person doesn't sometimes, so they have to tell the truth. And the person says that they're not telling the truth and . . . it kinda gets into a big fight and stuff.

Second Grade

Mark

10. He works at the White House and he lives in Washington, D.C. (What does he do?) He runs the country and he helps people. (What are some of the things that the United States government does?) They help people too. (How do they do that?) Like if somebody's dying around where they are, they could take them in their car to the hospital.

Emily

10. In Washington, D.C. at the White House. (What does he do exactly?) He sort of makes rules and goes places to help people and makes speeches to help our country. (What are some things that the United States government does?) Makes laws . . . like if you're going to another country, you need to pay some money and maybe if you're going to a foreign land, you have to have a passport.

Third Grade

Dale

10. Washington, D.C., and he works at the White House. (What does he do?) He basically talks to the Governors about certain things—talks to the government people, and so he tries to deal with problems like if someone plans an attack against them, he'd talk to the Governor and see what . . . and then they'd talk to the government of people and that government would call up like all of the Air Force bases and see what they could use against who's ever bringing up the war. Basically, what he's doing is he solves the problems that are caused by other states or problems in his own state. (What are some of the things that the United States government does?) They probably call up certain places to solve the problems that need to be solved, and if there's this really, really hard-to-catch killer on the loose, then they'd probably call in a couple of army men—they'd call up the nation of armies and they'd say, "I want about 50 people going here and there and surround this person," and they just keep scooching in and get him.

Chelsea

10. He lives in Washington, D.C. and he works at the capitol. (What does he do?) Sometimes if he has nothing to do, he could make laws or he has to work. He could write poems at night if he had time. He can make laws that he can obey too, and he can do mostly what he wants. (What are some things that the United States government does?) Makes laws that he can obey instead of just for people because he if breaks the law, he could get in really bad trouble. He can write poems. He can go to his house.

> He can go almost anywhere he wants because he doesn't have to work as much as the President does.

Grade Level Differences

Strong linear relationships with grade level appeared for the responses to Question 10A. The findings reflected the fact that few of the younger students but most of the older students correctly identified the White House and Washington, D.C. as the places where the President lives and works. In contrast, more younger students than older students were unable to respond to the question or incorrectly identified some place other than Washington, D.C. as the geographical location.

Most of the categories for coding responses to Question 10B also showed significant relationships with grade level. These data indicated that the younger students were more likely to be unable to say what the President does or to generate responses that emphasized virtuous behavior or unrealistic examples of problem solving, whereas the older students were more likely to give generic problem solving responses or responses that included realistic examples of presidential problem solving.

A nonlinear relationship with grade level appeared for "generic office work" responses that depicted the President reading, writing, or going to meetings. For unknown reasons, none of the first graders made this responses, where as six or seven of the students in each of the other three grades did. Taken together, the grade level data for Question 10 indicate that the older students have much more information than the younger students about where Presidents live and work and what they do, although the knowledge of even the older students about what Presidents do is quite limited.

Achievement Level and Gender Differences

The 14 categories for coding responses to Question 10 yielded 12 significant relationships with grade level (one nonlinear), but only three with achievement level (two nonlinear), and one with gender. The two nonlinear relationships occurred because average achievers were more likely than lower or higher achievers to supply a less specific or incorrect name for the White House and to identify problem solving (unexplained and without examples) in talking about what the President does. The remaining significant relationship with achievement level occurred because the higher and average achievers were more likely than the lower achievers to emphasize problem solving (either generically or with realistic examples). Overall, the students' responses to Question 10 showed less relationship to achievement level than did their responses to most other questions.

The single significant gender difference appeared because 31 boys but only 21 girls specifically identified the White House as the President's residence. Nonsignificant trends indicated that the girls were more likely to be unable to respond to this question or to identify the residence less specifically or incorrectly. There also was a nonsignificant trend for more boys than girls to identify Washington, D.C. as the location of the White House. There were no significant differences or noteworthy trends in the gender data for Question 10B.

Relationships Among Response Categories

Responses to Question 10A that identified the White House and Washington, D.C. as the places where the President lives and works were part of the maturity set for the interview as a whole. Within that, students who made these responses were more likely than other students to identify Bill Clinton by name when asked who is the head of our government, to say that he became President by winning an election, and to emphasize problem solving in talking about what Presidents do.

Students who emphasized virtuous behavior in responding to Question 10B were more likely than other students to have emphasized virtuous behavior in th[illegible] responses to previous questions about what government does and about how the President got to be the President. Students who emphasized solving problems in their responses to Question 10B tended to portray a society in which effective government led by competent leaders maintains an orderly society by making good laws and solving problems effectively.

Rare and Unique Responses

Question 10A: Where does the President live and work?

Kindergarten: At the United States (3); he works at his house (couldn't say more); in Tennessee; in George Washington, D.C.

First grade: New York City (2); at a government place in Michigan; where George Washington was.

Second grade: Lansing; East Lansing; lives in Washington, D.C. and works at the capitol; lives in Washington, D.C., which isn't in Washington but in Delaware.

Third grade: Lives in Washington, D.C. and works at the capitol (2).

Question 10B: What does the President/government do?

Kindergarten: Talk to people about being good; pound his gavel (judge); help our earth be clean; help people by saving their lives; stop the riots at Michigan State University; clean up stuff and help people to get better.

First grade: Send people to jail; he might be able to pull his teeth out if he's very strong (perhaps thinking about George Washington's false teeth); he might be a police officer and arrest people; he rides in a helicopter and gives speeches; collects and sells old clothes and gives the money to the poor, takes care of animals that need a habitat, and teaches people; gives people presents and judges people; makes people vote; tries to avoid assassination, sets broken bones, goes to war.

Second grade: Makes speeches, travels the country; takes injured people to the hospital; catches people who don't pay their taxes; travels; helps the country to stay united and not break apart; votes; decides questions brought to him by aides, such as "Can we knock down this building?" or "Can we shoot this country?"

Third grade: Government workers make sure that the President doesn't get shot; makes sure that people aren't breaking laws; signs autographs; appoints judges; travels.

Discussion

Younger students lacked much specific knowledge about the President's identity or location, let alone about what he does. The responses they were able to give emphasized general virtuous behavior (doing good, helping people, etc.), usually without specific examples. The examples they did give were more likely to be unrealistic than accurate in describing things that a President might do: personally stop riots, clean the environment, or engage in the activities of police officers, doctors, or judges. The older students were much more likely to know that the President lives in the White House and works in Washington, D.C., and to describe his activities as office work or solving problems. Their specific examples of problem solving tended to be more realistic (making executive decisions, appointing judges, etc.).

Among the (primarily older) students who were relatively realistic in their depictions of presidential activities, some imagined the President as mostly signing papers and doing office work, others as mostly carrying out daunting responsibilities requiring decisions about important problems, and still others as mostly traveling around the country providing speeches, photo opportunities, and autographs. These themes appeared later when students were asked about the positive and negative aspects of being the President.

Many of the rare and unique responses provide good illustrations of young children's tendency to depict Presidents not only as benevolent but as solving problems personally, even problems of individual citizens (taking injured people to the hospital, etc.).

Grade differences were especially prominent in responses to Question 10, with improvements especially noticeable between Grades 1 and 2. This suggests that most of these students had experienced a lesson or unit on the presidency in second grade (focusing on the current President and the activities of the federal government, as opposed to the focus on Washington and Lincoln that occurs in most grades in connection with President's Day). Achievement level and gender differences were minimal in responses to Question 10, although more boys than girls identified the White House (and to a lesser extent, Washington, D.C.) as the places where the President lives and works.

Activities of the Governor and State Government

Questions 11 and 12 addressed students' knowledge of state government.

Question 11. We live in the state of Michigan. The Governor of Michigan is John Engler. Where does he live and work? . . . What does he do? . . . What are some things that the government of Michigan does?

Question 12. What do people who work in the capitol building do?

We knew from previous research and pilot work that very few of our students would have been able to name John Engler if asked who was Governor of the state. Consequently, we included that information in the phrasing of Question 11 in order to help orient students to the question. Even so, more than half (57) of the students were unable to respond when asked where the Governor lives and works. Among students who were able to respond, 14 named the capitol building accurately but 8 named some other building, and 20 named Lansing accurately but 11 named some other location.

The second part of Question 11 asked what the Governor/government does. Here, 36 students were unable to respond and the rest gave answers similar to those given previously when asked what the President does. Of these students, 33 mentioned generic virtuous behavior, 28 mentioned problem solving without giving examples, 12 gave realistic examples of problems that a Governor might address, and 9 gave unrealistic examples. Many of these examples were essentially the same ones given when asked what the President does, replicating previous findings indicating that children are confused about the unique functions of different levels of government.

Question 12 asked about the activities of government employees who work in the capitol building. Over half (50) of the students were unable to respond to this question. Commonly occurring responses generated by the other students were initially coded into four categories: generic good deeds (helping people, doing good, working for the Governor, solving problems, etc.) (17), generic office work (work in offices, work on computers, write letters, stamp papers, etc.) (10), specific examples of governmental activities (respond to questions that people send in, develop rules and laws, act as aides to the Governor) (20), and "other" responses (e.g., clean the building so that it will look good for tour groups) (9). An additional code was added later to identify the 27 students whose responses identified relatively specific governmental activities that capitol building workers might be carrying out (students who had been coded in Category 2 and/or Category 3).

In general, the students' responses concerning the Governor and state government paralleled those given earlier concerning the President and federal government. Given that these students resided in a suburb of the state capitol, it was surprising that only 14 of them named the capitol building and only 20 knew that the Governor lives and works in Lansing. In general, the answers to Questions 11 and 12 indicated that K-3 students do not yet possess much knowledge about state government activities. The following examples from average-achieving boys and girls are representative of the responses from students across the four grade levels.

Kindergarten

Jered

11. He lives in Grand Rapids. (OK. Where does he work?) I don't know. (OK, what does he do?) I don't know. (What are some of the things that the government of Michigan does?) Be on TV.

12. Do capitol things. (What sort of things?) I don't know.

Kate

11. I don't know. (What does the Governor do?) He helps all the people. (What are some things that the government of Michigan does?) He gives other things to the people that he's supposed to give them to, and he helped other things.

12. I don't know.

First Grade

Chris

11. The capital of Michigan. (Do you know where the capital of Michigan is?) It's in Lansing. (OK. What does the Governor of Michigan do?) He works for the people. (How does he work for the people . . . what does he do?) I don't know. (What are some of the things that the government of Michigan does?) I don't know.

12. They work with the government. (What sort of jobs do they do?) They work at computers all day and then they go on the internet and if anyone wants anything . . . if he wants anything done, he'll just ask that person to do it, and then they'll try to work it up on the internet, and if they can't find it on the internet, he'll have to ask somebody else. (Do you know where the capitol building is?) In Lansing.

Lauren

11. I don't know. (What does the Governor of Michigan do?) Helps people out and makes rules that some people don't like. (OK. What are some of the things that the government of Michigan does?) He helps people and he does voting and he tries to get it over with but it doesn't happen that much, so he tries to think about it and if it doesn't get over, they'll have to think about it and they'll have to have to say who did what and . . . they don't tell the truth that much so he doesn't know what, he just thinks it's right, but . . . he has to make a decision and he makes one decision, that's which one he makes. (OK. And what happens when the government makes a decision?) That person will say, . . . have courage to say that I'm the one that did it, and that person shouldn't be here right now and that's how it got there.

12. I don't know. (Do you know where the capitol building is in Michigan?) No.

Second Grade

Mark

11. I'm not sure. (What does the Governor do—the Governor of Michigan?) I don't know. (What are some of the things that the government of Michigan does?) He helps people also.

12. I don't know.

Emily

11. He lives I think in Lansing and he works all over Michigan. (What does he do?) He sort of makes laws of Michigan and helps settle agreements. (What are some things

that the government of Michigan does?) They make laws to help people and make speed limits so that if anybody was over the speed that they wouldn't get hurt.

12. They help people like in court to do some things and they help make laws.

Third Grade

Dale

11. He works sort of near Bill Clinton's house but not exactly near it. He works around it, like in certain bases around it and near it and stuff. (What does John Engler do? He's the Governor of Michigan.) He goes to the President whenever the President calls him and stuff, and he usually is always ready to go there, and when the President calls him, he'll be driving right up there, or if he's really near, he'll just run right over there and listen to what the President has to say, and then he'll try to think of an answer for it and then go back and talk to the government. (What are some of the things that the government of Michigan does?) They try to stop certain bad people that are just really crazed and police can't catch them and nobody can seem to, and then they have other problems like wars being set against them and so they probably try to fight against the wars and get all the armies and the Marines and stuff like that ready for them, ready to go into that battle, and the third thing is they'd chase down . . . like if there's some sort of disease that's really bad and no one can find a cure, they'll probably call up some scientists and they'll go over and look at who's ever sick with it and try to see what it is, and if they see what it is, they'd go out looking for where the disease came from.

12. Basically, what they do is vote it in and they have people that are good at stuff, certain things that are really good at those, and they have those people there to help the President solve certain problems, like if there's a meteor coming to them. (Is the President here in Lansing?) No, but sometimes the President is, and if the President is there and he calls, some people will come there. Like there's a meteor coming down and he'd get the government and the government would call up a good person that can look through a good telescope and see things like that, and if they see that, they'd lock the telescope there and they'd have some kind of rocket ship . . . (It sounds like a movie you've watched.) Not exactly, but there are two movies sort of like that. (What two movies are they?) Deep Impact and Armageddon. So we'd probably take a rocket and point it right where that telescope is pointing, so basically they put a light in the back of the telescope so the light would shine on whatever they're looking for and then they'd let the rocket blast off with a missile attached to it, and then you've got a blast of dead rocks.

Chelsea

11. I don't know. (What are some of the things that the government of Michigan does?) He helps people, he obeys the laws, he can do things . . . and sometimes when he doesn't want to do something, he can just sit and write poems or make laws that he

can obey too instead of just other people. (Anything else that the government does in Michigan?) No.

12. If Bill Clinton wants something to drink, then all he has to do is tell them and they will go and get it. It's like having a servant or when the President isn't there and he's sick, then the Governor of Washington, D.C. can be there so the President can have somebody there for him so . . . and if he gets better because most of the capitol is open all the time and the President is working all the time and maybe if he feels better and gets better then he could come back in and he could tell the Governor that he could help him make laws or something. (Do you know where the capital of Michigan is?) I've seen it but I don't know where it is. (How about the people who work in the capitol building of Michigan—what do they do?) They mostly do the same thing as they do in D.C.

Grade Level Differences

Significant relationships with grade level appeared for Questions 11A, 11B, and 12. In each instance, many more of the younger students were unable to respond to the question and more of the older students generated responses coded in certain categories. When asked where the Governor lives and works, older students accounted for all 14 of the students who identified the capitol building and 17 of the 20 who identified Lansing as the location. Concerning the Governor's activities, more older students emphasized problem solving (either generically or with identification of realistic examples). Finally, when asked about the activities of people who work in the capitol building, more older students supplied realistic examples of governmental activities carried out by these workers.

Achievement Level and Gender Differences

The 17 categories for coding responses to Questions 11 and 12 yielded 10 significant relationships with grade level but only 5 with achievement level and one with gender. Four of the significant relationships with achievement level were linear ones indicating that higher achievers were more likely than lower achievers to depict the Governor as solving problems (and especially, to give realistic examples) and to identify office work or other specific examples of activities likely to be carried out by people who work in the capitol building. The remaining significant relationship with achievement level was a nonlinear one that occurred because more average achievers than lower or higher achievers said that the Governor lives and works somewhere other than Lansing.

The only significant gender difference occurred because nine girls but only two boys said that the Governor lives and works somewhere other than Lansing. In combination with nonsignificant trends, this difference indicates that the boys knew somewhat more than the girls about where the Governor lives and works, just as they knew somewhat more about where the President lives and works. However, there were no significant gender differences or even noteworthy trends in the students' responses to questions about the Governor's activities and the activities of people who work in the capital building. This reflects a similar pattern seen earlier in responses to questions about what the President does. In summary, boys were more able than girls to say where the President and the Governor live and work, but there were no gender differences in responses to questions about the activities of the federal and state government.

Relationships Among Response Categories

Students who said that the Governor works at the capitol building in Lansing were more likely than other students to know that the current President was Bill Clinton and that he lived in the White House and worked in Washington, D.C. They also were more likely to mention basic community services (police, fire, paramedics, etc.) when asked to identify things that government does for people. More generally, these responses were part of the maturity set for the interview as a whole.

The same as true of "problem solving" responses to Question 11B and "office work" responses to Question 12. Students who depicted the Governor solving problems were especially likely to speak of desired vision or policies as qualities they would look for in a Presidential candidate and to identify problem solving as a key activity of the President. This also was true of students who mentioned office work in depicting the activities of people who work in the capitol building. Again, these responses are part of a larger pattern generated by students who depicted a well ordered society run by leaders who are competent at making decisions and solving problems.

Students who mentioned generic good deeds in depicting the activities of people who work in the capitol building were more likely than other students to mention generic virtues in responses to earlier questions and to talk about being able to contact authority figures in order to request changes in laws that they didn't like (in responding to Question 14). This is part of the pattern of political leaders as benevolent, seen particularly in younger students.

Rare and Unique Responses

Question 11A. Where does the governor live and work?

This question was more difficult for the students than the parallel question for the President, partly because the Governor is less visible and partly because the Governor's house doesn't have a well-known name like the White House. The most popular idea about where the Governor works was the capitol building, which probably should be considered correct for students in the K-3 grade range. Several students named the White House or Washington, D.C., usually because they viewed the Governor as a Presidential aide or cabinet member (in effect; no student knew about the cabinet as such). Even some of those who were clear about the Governor residing in the state of Michigan viewed him primarily as an advisor to the President rather than as the state's chief executive. This replicates previous findings indicating that children confuse different levels of government and tend to construe anyone other than the President as a "helper."

Kindergarten: Grand Rapids; an old house or something; in the United States; in a building in New York City; in England.

First grade: A tall building somewhere; somewhere in the lower peninsula (of Michigan); Florida.

Second grade: The White House (2); I saw his house (summer home) on Mackinac Island; Washington, D.C.; he lives in Lansing but his work takes him all over the state (2).

Third grade: White House (2); Washington, D.C. (3); in a big white building in Lansing.

Question 11B: What does the Governor/government do?

Most of these answers referred specifically to the Governor, but a few described state government in general.

Kindergarten: Clean up and paint houses, vacuum them (adds that "I don't like John Engler"); be on television; get divorced [Engler had gotten divorced and remarried] and go to court where the President is (to help the President); make cities better and create more jobs; clean (not explained further); tell MSU people not to have riots.

First grade: Advise the President; try to make everyone "happy and nice" so they won't try to kill him, and not litter; make speeches; make rules that some people don't like and act as a judge to determine the truth (find out what really happened) in court proceedings; the Governor fights for our country and "governor workers" help by making sure that there isn't war and that the Governor doesn't skip papers so he can go in order.

Second grade: Bosses people around, travels; makes safety laws for state; hires construction workers, sends out ambulances, hires army and police people; makes food and clothes for people; levies taxes to pay community workers; helps settle arguments, makes speed limit laws; builds buildings, creates jobs; fixes potholes, raises tax money; helps the President; improves safety, such as by seeing that streetlights are installed.

Third grade: Tells people to build houses and does background checks on people applying for jobs in stores; has to watch the news regularly to keep informed; calls in the FBI to catch particularly elusive criminals, directs the armed forces, supervises searches for cures for disease (in role as helper to the President); maintains public order, keeps streets clean; makes laws about schools and roads; goes to court if necessary to solve the state's problems; makes sure that schools "go right;" makes sure that people aren't speeding or breaking other laws; travels; makes laws about taxes and speed limits; gives statements (e.g., making a memorial speech when someone dies); the Governor orders buildings to be built and government workers "have court."

Question 12. What do people who work in the capitol building do?

Some students initially took this question differently than we had intended, including several who were thinking about the capitol in Washington, D.C. and one who started talking about bowling because he was thinking about Capitol Bowl (a local bowling alley). More commonly, however, some students took "people who work in the capitol building" to be legislators and thus talked about voting and making speeches, whereas others took it as we had intended (people who work in various governmental offices).

Kindergarten: Talk to people who don't have homes (and try to follow up by helping them).

First grade: Plant trees, build houses; respond to questions sent via the internet; drive around and go to people who have run out of gas to give them gas or give water to thirsty people.

Second grade: Decide who will go to jail or not; keep the building clean for tourists; clean the rooms; make laws and do building inspections; give tours; "They do votes there" (legislators); "My aunt used to work there, so I got a tour" (goes on to say that she worked using a computer to control lighting in the streets).

Third grade: Make the rules for Michigan; make laws and order the preservation of old buildings; write and deliver speeches; give tours; vote and give speeches; respond to questions sent by letter and then arrange to solve the problem (e.g., complaints about littering); take votes and hire people; guard the building so no one tries to harm it; arrange for road repairs (by sending notes to the Governor asking if they can have permission to fix roads in a certain place—he says "OK, but we gotta get people to do it.").

Discussion

The students' answers concerning the Governor and state government paralleled in many ways their answers to previous questions about the President and the federal government. However, they also replicated earlier findings that children tend to have more information about the identities of the individuals holding office at higher levels of government (especially the President, relative to the Governor or mayor), but at the same time to have more information about governmental activities at the local or state level than the federal level. Many more students knew that the President lives and works in the White House in Washington, D.C. than knew that the Governor works in the capitol building in Lansing (none mentioned the Governor's Mansion near the capitol building). In talking about the President and the Governor, there were many parallels in the popular response categories. In particular, a subset of students emphasized generic virtuous behavior (doing good, helping people, etc.) and another, larger subset emphasized solving problems (of whom only some could give realistic examples). In each case, the older students knew much more than the younger students, although the scope of their knowledge was limited.

These parallels that can be seen in comparing the categories for popular responses shown in Table 1 are balanced by some important differences that show up in the lists of rare and unique responses. These lists indicate that the students had many more realistic ideas about the activities of the Governor and the people who work for the state government than they did about the President and the people who work for the federal government. However, many of their suggested examples conflated the activities of local government with those of state government, and some of them depicted the Governor as a helper to the President.

Most students' images of government work were limited to vague notions of office work or problem solving. Also, although the aggregate of responses to questions about the federal and state levels of government indicated general tendencies to connect national problems to the federal level and more local problems to the state level, there were frequent confusions concerning the responsibilities and functions carried out by the federal, state, and local levels of government, respectively.

Most of the examples of governmental activities were generated by the older students, and almost all of these did in fact refer to governmental (as opposed to private sector) functions. Thus, even though these students were still vague about the political system, the responsibilities of various political offices, and the functioning of governments generally, they did have a sense of the difference between public sector/governmental activities and private sector/business activities.

Achievement level differences were weaker and less frequently statistically significant, although there was a notable tendency for the higher achievers to generate most of the sophisticated responses included within the maturity set for the interview as a whole. Gender differences were rare, although more boys than girls identified the state Governor with the capitol building and Lansing, just as more boys than girls previously had identified the President with the White House and Washington, D.C.

Laws

Questions 13-15 addressed students' knowledge about the distinctions between rules and laws, about the making and changing of laws, and about current law making in the news.

Question 13. Where do laws come from? (If necessary, ask: **Who makes laws?**) **. . . Do you know about any laws that our government is working on right now?**

Question 14. Can laws be changed? . . . How do they get changed? . . . Do you know of any laws that have been changed? . . . What could your parents do if they didn't like a law?

Question 15. People are supposed to follow rules and laws. Why do we need rules and laws? . . . What is the difference between a rule and a law? . . . What happens to someone who breaks a law?

All but 13 of the students had one or more ideas about where laws come from. A majority (59) said that laws come from the President, the Governor, or judges. Other responses included the government (27), the police (10), Congress or legislators (6) and "other" (God, the people, bad guys, etc.) (9). These findings replicate previously reported findings that children are much less aware of the legislative than the executive and judicial branches of government, commonly believing that laws are decided and proclaimed by executives or judges rather than developed and voted upon through a legislative process.

The second part of Question 13 (Do you know about any laws that our government is working on right now?) did not yield many responses. Those that did appear were included in the coding of the part of Question 14 that dealt with knowledge of laws that have been changed.

Question 14A asked if laws can be changed. More than two-thirds (68) of the students said maybe or yes, whereas 22 said no and 6 could not respond. Students who thought that laws could be changed were asked how this occurs. The majority (40) said that the President, Governor, or judges change them. Other responses included the notion that people in the government who make the laws have a revote (11), that the new law or change in law is publicized through the media (6), and "other" responses such as that God changes the law, the citizens petition for change, or the President speaks to the government about making the change (6). These responses to Question 14 follow those to Question 13 and provide further indication that most students in these grade levels believe that laws come from the executive or judicial branch of government and do not know much if anything about the legislative branch.

In Question 13, the students were asked if they knew about any laws that the government was working on at the time, and in Question 14, they were asked if they knew about any laws that had been changed. Neither of these questions yielded many responses, and the distinction between introduction of a new law and a change in an old one seemed arbitrary, so we considered the students' responses to both questions and coded whether or not the students were able to name at least one specific law that had been introduced or changed. Only 27 students were able to do so. Most of their examples dealt with bicycle safety, seatbelts, or the regulation of smoking, alcohol, or drugs.

The last part of Question 14 asked the students what their parents could do if they didn't like a law. A majority of the students either could not respond to this question (33) or said that their parents could contact the President, the Governor, or the police official who made the law and request change (32). Other common responses were that nothing could be done and the parents would just have to accept and obey the law (14), that the parents could disobey the law and do what they thought was right (12), and that the parents could contact their representatives in the legislature (9). Once again, a majority of the responses flowed from the assumption that laws are promulgated by the executive or judicial branches of government, with only a few of the older students mentioning contacting legislators. The 26 students who thought that their parents could not do anything to change a law were split almost evenly between those who said that the parents would just have to accept it and those who said that the parents should defy it. Most of the latter students were working from the assumption that there was something wrong with the law that justified an unusual decision, not the assumption that people frequently choose to disobey laws that displease them.

Question 15A asked why we need rules and laws. All but 11 of the students were able to respond to this question, and a majority (61) articulated a safety rationale (laws keep us safe, prevent harm, etc.). In addition or instead, 29 students said that laws prevent chaos or make for a well-ordered society, and 9 said that they provide guidance (so that people will know what to do or how to act). All of these commonly occurring responses reflect a positive view of laws—that they are needed and helpful.

Finally, Question 15B asked about the difference between rules and laws. All but seven of the students were able to respond to this question. Of these, a majority (50) drew one or more contrasts, typically stating that you can break rules but must obey laws (29), that rules apply only in the home or school but laws apply everywhere (24), or that rules are made by parents or teachers whereas laws are made by governments (9). The remaining students generated substantive responses that were relevant to the question but did not respond directly to it by drawing contrasts between rules and laws. These responses came from students who either said something accurate about rules or laws but did not compare them directly (39) or else gave examples of rules or laws but did not draw a clear distinction between them (6). In general, those students who did draw distinctions depicted rules as applying only in certain contexts and breakable with only minor consequences, but laws as applying everywhere and requiring obedience under penalty of significant consequences (fines, imprisonment). The following examples from average-achieving boys and girls are representative of the responses from students across the four grade levels.

Kindergarten

13. From people. (How do people make the laws?) With paper. (Is there anything else you can tell me about how the laws are made and who makes the laws?) Seeds. (Seeds? OK, do you know about any laws that our government is working on right now?) No.

14. No. (Do you know of any laws that have been changed?) No. (What could your parents do if they didn't like a law?) They could cut it down.

15. Because you could get hurt. (What's the difference between a rule and a law?) I don't know. (What happens to someone who breaks a law?) They get in trouble. (What kind of trouble?) Police trouble. (If they're in trouble with the police, then what happens to them?) Then they go in jail. (Does everybody who breaks the law go to jail?) No. (So why do some people go to jail and some people not go to jail?) Because some escape.

Kate

13. I don't know what a law is. (A law is like you shouldn't speed, when you're driving a car. Where does that law come from?) It comes from the President, because you can get hurt if you speed, and you can get hurt if you drive with your eyes closed, and you can get hurt if you speed on a boat in a little, little place. (So who makes laws?) The President. (Do you know about any laws that our government is working on right now?) No.

14. No. (Well, what could your parents do if they didn't like a law?) I don't know.

15. So nobody gets hurt. (What is the difference between a rule and a law?) Rules are the same thing as laws. They do what the laws do. (What happens to someone who breaks a law?) They have to go into the court. (What happens then?) Then they talk to the person.

First Grade

Chris

13. The government. (Do you know about any laws that our government is working on right now?) No.

14. Yeah. (How do they get changed?) If the government people don't like the law anymore, they can just change it, like when the black people had to be the white people's slaves. (Do you know what they do to change laws?) No. (Who changes the laws?) The government. (What could your parents do if they didn't like a law?) They could ask the government to change it.

15. So nobody shoots somebody or kills somebody. (What might happen if we didn't have rules or laws?) It would be total chaos. (What sort of things would happen?) People would be getting killed all over the place and then a lot of people would get arrested. (What's the difference between a rule and a law?) A rule is something in your house that your parents don't allow you to do, and the law is something you can't do—ever. (How come?) Because you can get arrested for that. (What happens to someone who breaks the law?) They get arrested. (Does everyone who breaks a law get arrested?) No. (How is it decided who gets arrested and who doesn't?) If they shoot somebody, they get arrested; if they don't shoot anybody, they don't get arrested. (What happens after someone gets arrested?) You go to jail.

Lauren

13. The government. (Do you know about any laws that our government is working on right now?) No.

14. Yeah. (How do they get changed?) The government [Governor] says, "I think that should be changed," like the speed limit. And because people are going too fast all the time. And he changes it, he calls up a person I think, and I think he tells them to change the speed limit to 40 or something. (OK, and so how does the government decide which laws need to be changed and which ones are OK the way they are?) I think he sees that that should be changed, it's too wild out there, and the people are crashing into each other, and so they should just change it. (OK. Do you know of any laws that have been changed?) No. (What could your parents do if they didn't like a law?) They could go and fix it and just do what the government says and it will be over with. (What else do you think they might be able to do?) Just say, I think we should follow the rules because we don't want to go to court. (OK, you were telling me about the traffic laws. How would the government decide other sorts of laws—if they needed to be changed or not?) I'm not sure but you can only drive trucks for three hours or you kinda get sleepy. That could be a law. Lots of people think that's safe because they drive all day, and then at night kinda get tired.

15. So people don't get hurt and . . . it's safe to have laws because people have to be safe and they watch out for their kids and that's why laws are made. (What would happen if we didn't have any rules and laws?) Everyone could get hurt every day or something. (Why would we get hurt if we didn't have any rules and laws?) Because people will be crashing into each other and they just go as fast as they want, and it couldn't happen because the other car is going kinda slow and then the other car is going fast and they could crash . . . and that's bad because they could die in it . . . and that's why laws are made. (What is the difference between a rule and a law?) A rule is like you can't jump on the furniture, and a law is like, if someone gets hurt or something. That's why . . . I think a law is something that everyone has to do, but jumping on furniture, every parents doesn't have to do and that's how they're different. (What happens to someone who breaks a law?) They would go to court and tell them why they broke the law, like if they were late for work, they were kind of going fast. That's why they go to court and tell them why they were speeding but they would get a

ticket, and they limit on how much they do it, and if they do it over the limit, they would have to go. (So does everyone who breaks a law get a ticket? Or could anything else happen to them?) Well, everyone doesn't get a ticket, but when there's a policeman around, someone would honk and say, "You're breaking the laws," and then there's a policeman to make the ticket.

Second Grade

Mark

13. The government and the President. (Do you know about any laws that our government is working on right now?) No.

14. Yes. (How do they get changed?) Like the government says you have to be 18 in order to get a car, and now they say you have to be 16 in order to drive it. (What could your parents do if they didn't like a law?) I don't know.

15. Like if you're on a busy street, and then you have to have stop lights and stop signs so people don't crash. (What's the difference between a rule and a law?) A law is something that you have to follow, like you have to follow the speed limit or else you'll get a ticket, and a rule is just that there's a rule some place but it isn't always every place. (What happens to someone who breaks a law?) If they break a speeding law, then they get a ticket.

Emily

13. The Governor of the states. (Do you know about any laws that our government is working on right now?) No.

14. They might be able to. (How do they get changed?) Maybe they could take those laws back and redo them over and try different stuff. (Do you know of any laws that have been changed?) I don't think so. (What could your parents do if they didn't like a law?) They could be nice about it and just maybe tell somebody about it, cause my mom knows the Governor and she could tell him that she doesn't really like this law and maybe he could change it just a little bit.

15. To keep us safe. (What's the difference between a rule and a law?) A rule is something like you need to do this, like a house rule that you need to follow, but a law is the same thing except it's for everybody to follow. Rules are just like you make them up but the law is . . . the Governor makes them up and you have to follow them. (What happens to someone who breaks the law?) They might go to jail or court.

Third Grade

Dale

13. Laws are basically things that you shouldn't do. They're laws and if you break them you might get arrested and you could get in deep, deep trouble. (Who makes laws?) Usually the government, but if there's a person and if the thing happens, then they'd probably make a law that that cannot happen, otherwise you'll get arrested, and then they'll send that to the President and the President will talk to the voters and the voters will all vote on if that should be or shouldn't be. (Do you know of any laws that our government is working on right now?) No.

14. Oh, yeah, easily. (How do they get changed?) They easily get changed if they start to stop and die down and just never happen for the millennium or so and then they'd probably decide that everyone understands this. (What could your parents do if they didn't like a law?) They could move out of the state, or for any reason try to change that by voting on . . . because they'll say, "I want to vote for this again," and if they voted for it and say, "OK, this is OK for me," and then suddenly decided it was getting annoying to have the same old law . . . (How would they go about that?) Well, they might let them vote, and then again, they might not. Now, if they let them vote, they'd probably call up one of the best voters and say "Will you please vote for this," and he might not vote for it because he probably might like that law a little more than she thinks, and then they'll vote and see who votes for the most of the things and who thinks they should be, and then the parents are just going to have to see if that will happen.

15. Because if we didn't follow some of them, our world would be trashed by certain things, like there's a law about littering—you cannot litter. You won't get arrested for it, but you just shouldn't litter. That's basically what they're try to say to you. Now, if you do litter, you usually would get in trouble for that by your parents if they see you. (What's the difference between a rule and a law?) A rule is something smaller than a law. Like the school has rules like you can't run in the hall. That doesn't go for the whole state, because there are some buildings that have floors that are made for running on, like there might be this indoor thing where it's got a track indoors that you can run on. So it doesn't exactly go for everything. But laws go for everything. Law are made so that everything in the state, country or that, have to follow those rules and if you don't, you get in some big trouble. (What happens to someone who breaks the law?) If the law is a really big one and you break it, you get in serious trouble. You'd probably get arrested for that. But if it's like a tiny law like not littering, then you'd probably just get in trouble by your parents.

Chelsea

13. Laws come from Governors or Presidents or Vice Presidents or Vice Governors because they're the only ones that can make laws, or the police can make laws but I don't really think the police can make laws unless the President or Governor says it's

OK. Unless they're with them and maybe they don't agree. Like say that there's no smoking in a car. (Any other ideas about where laws come from?) No. (Do you know about any laws that our government is working on right now?) To keep your seatbelt on because then you won't hurt yourself or kill yourself. There's no smoking in the capitol.

14. I'm not sure. Maybe if they're really weird ones. Usually the Vice President and the Vice Governor or the Governor or the President don't make weird laws because they know what they're doing because they work on them all the time and they know. (How do laws get changed?) If a President breaks one, or a Governor—I'm not sure. (What could your parents do if they didn't like a law?) I don't know.

15. If we don't have rules and laws, then we can get hurt or we can kill ourselves by drugs or something. Maybe they smoke so much that their lungs start to hurt and they could hurt theirself. Or, if there wasn't any laws then people could just go by people's houses and shoot people. (What's the difference between a rule and a law?) If the President makes a rule, then you can't get arrested for it, but if it's a law, then you can get arrested because if you're drinking and driving you can get arrested and you can have a ticket. (So the President makes both the rules and the laws?) Well, the President can help the Governor make laws and the Governor can help the President make laws, and in the whole United States everybody can help. (So everyone can help make the rules or help make the laws?) Make the rules. (What happens to someone who breaks a law?) They could either get arrested or they could get a ticket or maybe they could get something else that is really bad . . . and if they keep on smoking or if they keep on drinking and driving, they could hurt theirself. (So what happens after someone gets arrested?) They just put them in the police car and sometimes they don't have a police car because the polices are on break, and when somebody gets arrested they just take them from their car and put them in the police car and then they can drive them to the police office and tell them what happened. Like say, somebody was drinking and driving and they got arrested and it's a law not to drink and drive at the same time, so maybe they could go inside just for smoking so much. (How is it decided who gets a ticket and who gets arrested?) They can get arrested if they speeding and hurting people, but if they just speed and try to pass people and if they just stay in that lane, they might just get a ticket.

Grade Level Differences

This set of questions produced a great many grade level differences. All but one of them were linear, indicating that the older students had more to say about the topic than the younger students did (although what they said was not always accurate). For example, most of the 13 students who were unable to respond to Question 13 were younger students, and all 6 of the students who mentioned Congress or a legislation process were older students. However, older students were more likely than younger students to say that laws come from the executive or judicial branches of government or from "the government" generally.

When asked if laws can be changed, older students were more likely to say maybe or yes but younger students were more likely to say no or be unable to respond to the question. Older students also were more likely to identify ways that laws can be changed (either correctly by referring to legislative revotes or incorrectly by referring to decisions made by executives or judges), and more likely to name one or more specific laws that had been or might be changed or introduced.

Concerning what students could do if they didn't like a law, the younger students were more likely to be unable to respond or to talk about defying the law, whereas the older students were more likely to mention contacting someone in government (although most of them mentioned executives, the police, or judges rather than legislators). Finally, when asked why we need rules and laws, younger students were more likely to be unable to respond and older students more likely to make reference to avoiding chaos or maintaining a well-ordered society. There also was a nonsignificant trend indicating that older students were more likely than younger ones to produce the most popular response (that laws prevent harm and keep us safe).

Concerning the difference between a rule and a law, the older students were more likely to draw contrasts whereas the younger students were more likely to be unable to respond or to say something accurate about rules or laws but not compare them directly. There was a nonlinear relationship with grade level for giving examples of rules or laws but not distinguishing clearly between them. This occurred more frequently among second graders than among students in the other grades (although it was coded for only six students altogether).

Achievement Level and Gender Differences

The 30 categories for coding responses to Questions 13-15 yielded 22 significant relationships with grade level, but only 6 with achievement level and 2 with gender. One of the achievement level relationships was nonlinear, indicating that average achievers were more likely than either lower or higher achievers to contrast rules and laws by saying that rules apply only to the home or school but laws apply everywhere. The remaining relationships with achievement level indicated that lower achievers were more likely to say that laws come from the police, to say that parents who didn't like a law should simply defy it, and to be unable to say why we need rules and laws, whereas higher achievers were more likely to say that laws come from the government and that rules and laws are needed to prevent harm and keep us safe. Once again, this pattern indicates greater sophistication in the responses of the higher achievers, but with the achievement level differences being much smaller and less frequently statistically significant than the grade level differences.

The two significant gender differences occurred because six girls but no boys gave "other" responses when asked how laws are changed, and seven girls but only two boys said that we need rules and laws to provide guidance (so people will know how to act). Both of these categories encompassed infrequently occurring responses that are difficult to characterize with respect to their level of sophistication. The more general pattern across this set of responses is that the boys' and girls' patterns are very similar, with neither group appearing to know more than the other about rules and laws.

Relationships Among Response Categories

Students who believed that the police make the laws were more likely than other students to depict judges as lecturing defendants about stopping their criminal behavior and to mention the police when asked about things that the government does for people. For these students, the police were the most salient representatives of government.

Unsurprisingly, students who said that laws come from the President, the Governor, or judges were more likely than other students to say that laws are changed because the President, the Governor, or judges change them. Similarly, students who said that laws come from "the government" were more likely than other students to say that laws get changed when people in the government who made the laws have a revote, to say that their parents could contact their representative if they didn't like a law, and to mention lawmaking when asked what people who work in the capitol building do. Also, students who mentioned a legislative process when asked where laws come from were more likely than other students to say that their parents could contact their representative to protest a law.

Students who believed that laws are determined by Presidents, Governors, or other authority figures (judges, police) were more likely than other students to talk about contacting these authority figures to seek changes in laws. These responses were part of a larger pattern noted previously that reflected the views of a significant subset of students who assumed a generally benevolent society run by competent leaders who make good decisions. Thus, it was natural for them to assume that these authority figures would want to correct any injustices that they learned about and thus would be amenable to receiving and acting upon protests of laws from ordinary citizens.

The following responses from this set were included in the maturity set for the interview as a whole: knowing that laws can be changed, being able to provide an example of a recently changed or added law, speaking of their parents contacting their representative or another authority figure if they didn't like a law, describing rules and laws as needed to avoid chaos and creating a well-ordered society, and drawing a contrast between rules and laws (particularly noting that breaking rules has no or only minor consequences but breaking laws risks serious trouble).

Rare and Unique Responses

Question 13: Where do laws come from?

Five students (younger ones) said God or Jesus and four (mostly older ones) said "the people" or described a popular vote.

One kindergartener said that laws come from "bad guys," and another said that they come from the law business or from George Washington.

The only other rare and unique responses came from third graders. Two of them said that the legislature passes laws and the President or Governor has to approve them. In addition, several others described some alternative form of collaboration between the President and the legislature (e.g., Presidents meet with legislators to discuss possible laws and negotiate agreement on what to do).

Question 14B: How are laws changed?

Kindergarten: God changes them (3); changes are submitted to popular vote.

First grade: When a new law is passed, the President sends people to drive around the country, blow their horns to get attention, and then explain the new law to the people; laws change when a new President takes office and makes changes.

Second grade: Laws change when a new President takes office and makes changes (2).

Third grade: Laws change when a new President takes office and makes changes; laws change because a lot of people get together and complain or demand change (3).

Question 14C: Specific examples of changes in law.

Kindergarten: New seatbelt laws.

First grade: New laws for seatbelts; laws about suicide (the arrest and trial of Jack Kevorkian was widely publicized in Michigan); laws passed in previous years regulating stop signs and the Pledge of Allegiance; speed limits and restrictions on how long truck drivers can drive without stopping to rest or sleep; bicycle safety laws requiring people to walk their bikes across busy intersections.

Second grade: New laws requiring seatbelts (2); laws on drugs, smoking, and drinking in cars; laws allowing you to get a car at age 16 instead of age 18; laws requiring you to be 22 rather than 21 to buy tobacco; laws banning tobacco ads; laws allowing people to turn right on red lights and banning people from having more than three marriages (because a famous actress had nine marriages and this isn't good for children).

Third grade: New laws requiring seatbelts (3); laws protecting wildlife and banning speeding; laws regulating riding of bikes in the streets and setting a minimum age for using jet skis; laws banning guns except for hunting; laws banning guns for children or teenagers; gun control and gun safety laws; drug laws; laws to prevent school shootings; laws raising the driving age from 16 to 17; laws banning smoking in the capitol building; laws prohibiting buying drugs until age 18 or 21; and laws regulating smoking and drinking (e.g., age 21 for purchase).

Question 14D: What can parents do if they don't like a law?

Kindergarten: Express frustration by throwing things or punching a wall.

First grade: None.

Second grade: None.

Third grade: Go to court and argue for change (2); press charges against the Governor; vote against the President in the next election; organize popular resistance to the law.

Question 15A: Why do we need rules and laws?

Among students who emphasized the regulatory functions of laws, those coded for safety rationales tended to focus on traffic regulation whereas those coded for chaos avoidance tended to focus on crime. Only six students talked about laws providing guidance about how to act, and only three talked about making sure that people are treated fairly or have their rights secured. One kindergartener said that it would be OK if we didn't have any laws at all (thinking about speeding laws). The following third grader is quoted at length as an example of "chaos avoidance" responses.

Because if we didn't have laws people would like be breaking windows and . . . hurting people and climbing on people, other people's houses, and start shooting everybody and making fires everywhere and then we wouldn't have any buildings to rest in. Then everybody would start drinking a lot of beer and then driving, because they didn't know that was a law. And then we would just have nothing. The whole earth would be nothing, and then we wouldn't have people and then we wouldn't have anything. (And how do rules and laws keep all of that from happening?) Because if people do that, then they go to jail . . . for like a month, or two months, or a year. And I think that they don't want . . . nobody wants to go to jail because they don't feed them a lot. (Hmmm.) And that's probably why they don't want to ruin the law. (OK, what is the difference between a rule and a law?) Rules . . . laws are serious and rules are . . . you don't have to go to jail for them, you just get like a broken bone. Because a law is "No shooting anybody," and that's more worser than "No putting oil into the pond." That's a rule. Gun shooting is more worser than putting trash into the pond. (Who can make rules?) Presidents, probably the government too. (Anybody else?) No. Maybe your mom and dad, because they might make rules around the house. Because when I was like four, they had to tell me the rules. (OK. Anyone else that can make rules?) No. (You told me that the Presidents make the laws?) Yeah. (So is there something that you can tell me about what makes them different? If parents make rules . . .) Because parents, um, the President, laws are more serious than rules, and parents can't just say, "This is going to be a law and this is going to be a law and this is going to be a law. Because then there would be no more rules and then someone might climb on the table and somebody might say that's a law and then you might go to jail. (OK, and why would that be bad?) Because . . . like if you were four, you might have to go to jail for three days and you wouldn't know better. (What happens to someone who breaks the law?) They go to jail for like a year, but if they are child age, then they have to stay for like two weeks. (Are there any times when someone needs to stay in jail for longer than a year?) Yeah, if they did something more serious. (Does everyone who breaks the law go to jail?) Yeah. (Can you think of any times when someone might break the law and not go to jail?) Maybe if they got away with it. They would probably shoot somebody and then like bury them and then get away with it. And they wont' know. Then they'll start killing other people. Like the guy who killed more than six hundred or six thousand.

Question 15B: Contrasting rules and laws

Kindergarten: Lawbreakers will get hurt; lawbreakers "won't be Christian and won't go to heaven;" lawbreakers will "go down to the devil;" a rule would be no running in school, whereas a law would be no breaking windshields in stores or televisions.

First grade: Rules can be changed but laws cannot; laws are made when people can't be trusted to follow a rule (in other words, you need to add sanctions).

Second grade: None.

Third grade: None.

Discussion

Although a majority could draw at least one contrast between rules and laws, most of the students didn't know much about laws or the lawmaking process. Only a small minority had any specific knowledge of the legislative branch of government, so the majority assumed that laws are proclaimed by the President, the Governor, judges, or the police.

More than two-thirds of the students understood that laws could be changed, but again, most of these thought that this would involve decisions made in the executive or judicial branches of government. Only 11 students referred to a revote on the part of the people who made the laws in the first place. Similarly, when asked what their parents might be able to do if they were unhappy with a law, the responses emphasized contacting government officials in the executive or judicial branches rather than the legislative branch. This pattern of findings replicates earlier reports that children are much more aware of the executive and judicial branches than the legislative branch of government.

More than a quarter of the students were able to identify one or more laws that have been changed or might be changed or introduced. Most of these responses were accurate, focusing on bicycle safety, seatbelts, or regulations concerning smoking, alcohol, drugs, or weapons. It was to be expected that students would be much more aware of laws regulating the behavior of individuals than of laws regulating commerce, corporations, or governmental processes. Although a minority of the students was able to generate generally accurate examples, it should be kept in mind that more than two-thirds of the students could not generate any examples of laws that had been introduced or changed.

Responses to questions about how laws are changed or about the possibility for seeking change in the laws indicated that very few students had realistic ideas about political organization or lobbying. A few third graders spoke of organizing to create political pressure for new or changed laws, a few spoke about their parents seeking redress in the courts, and one mentioned voting against the incumbent President in the next election. Overall, although few of these students knew much about the processes involved in making and changing laws, the fact that two-thirds of them understood that laws can be changed contrasts with previous findings that children tend to think of laws as longstanding and unchanging.

The students' attitudes toward rules and laws were generally positive, reflecting beliefs that they make for a safe, well-ordered society and provide guidance about desired behavior. Several drew apocalyptic visions of the chaos that would result if rules and laws were not in place.

The overall pattern was one of very limited knowledge about laws and lawmaking. Within this pattern, the older students consistently displayed more knowledge than the younger students, the higher achievers occasionally displayed more knowledge than the lower achievers, and the responses of the boys and girls were much more similar than different.

Judges

Question 16 asked the students about the activities of judges.

Question 16. Judges are part of the government too. What do judges do?

A substantial minority (36) of the students either were unable to respond to this question or could only produce vague generalities (judges help the government, talk to people, etc.). Of the rest, a majority (40) said that judges decide criminal cases (determine if people are guilty or innocent). In addition or instead, 15 students described judges as presiding over the courtroom (running the court, keeping order, banging their gavels, etc.), 10 depicted them deciding civil cases (making rulings in lawsuits, divorces, etc.), 8 depicted them "lecturing" defendants about their conduct, 6 depicted them questioning to elicit facts or motives (talking to witnesses to clarify what they saw or talking to the accused to clarify their motives), and 9 produced "other" responses (speaking very politely to people, reviewing jury decisions, etc.). Thus, those students who were able to respond were quite realistic in their depictions of the activities of judges, most probably reflecting information gleaned from watching television. The following examples from average-achieving boys and girls are representative of the responses from students across the four grade levels.

Kindergarten

Jered

16. They tell if they go to jail..

Kate

16. They judge if they're doing the right thing or not.

First Grade

Chris

16. They know who gets arrested . . . they tell them whether to arrest the person or not.

Lauren

16. I don't know.

Second Grade

Mark

16. Like if somebody's in a fight and they say this is that and this is that, then like if they say there's money on it, then they have to pay money for what they did, like if they broke your car door, then the judge would decide who wins and who loses. If the other person loses, then they have to pay for your door, and if you lose, then you have to pay for it.

Emily

16. They help settle agreements and they help in the court and they might like say you're innocent, guilty, or have to pay a fine or something.

Third Grade

Dale

16. They judge things. Like if a person comes in and they've witnessed this crime that's been done by a person, they'd tell their story and the judge would think about that, and then a couple more people would come in and tell their story, and the judge would think with the other people, and then finally the person who did the crime or didn't do the crime would walk in and tell his story and then they'd judge it and see which one sounds more better to trust, and it's usually that the only two things that could happen are the witnesses didn't see right and maybe they saw something else that looked like a crime but wasn't, or the person actually committed the crime.

Chelsea

16. Judges decide if one person is guilty or innocent because they can tell by the stories. Sometimes they lie to the judge, which is really bad. They can get arrested if they lie to a judge, because they can tell if they're lying. I saw a show about a judge and there were two people and one of them was lying because they said they weren't drinking when they were drinking and driving because a policeman saw them.

Grade Level Differences

Grade level differences in responses to Question 16 were less obvious than in responses to most other questions. Still, younger students were more likely to be coded for inability to respond or restriction to vague generalities in their responses, whereas older students were more likely to depict judges as deciding criminal cases or to give "other" responses.

Achievement Level and Gender Differences

The seven categories for coding responses to Question 16 yielded three significant relationships with grade level but only one with achievement level and one with gender. Lower achievers were most likely and higher achievers least likely to depict judges as questioning people to elicit facts or motives. This pattern would have to be considered surprising, given that such questioning is a salient part of the judge's role, particularly as depicted on television. However, the reliability of this relationship is questionable given that it is based on a total of only six response codes.

The gender difference appeared because 25 boys but only 15 girls depicted judges as deciding criminal cases. In combination with nonsignificant differences in the other categories for coding responses to Question 16, this difference indicates that boys were slightly more able than girls to talk about the activities of judges.

Relationships Among Response Categories

Students who depicted judges as deciding civil cases were more likely than other students to talk about solving problems as the main activity of the executives or governments at the federal and state levels. This was part of the pattern produced by students who assumed a well-run society governed by competent leaders who make good decisions.

Students who depicted judges as "lecturing" defendants about stopping their criminal behavior were more likely than other students to say that laws come from the police and that government helps people by providing police and other basic community services.

Rare and Unique Responses

Two students referred to Judge Judy and one referred to Judge Brown. The overall pattern of responses suggested that these and other stars of television "judge" shows were the models for the students' images of judicial responsibilities, because most students depicted judges as deciding guilt or innocence and the fate of defendants (as opposed to juries making these decisions and the judges merely announcing them as part of their role of presiding over the court).

Some of the students coded for depicting judges as presiding over civil cases had had family experiences in the divorce courts.

Only one student depicted judges as reviewing laws to see if they were good or not. Thus, students at these grade levels are not aware of the judicial review function of the judicial branch of government.

Kindergarten: Judges rule (no elaboration).

First grade: They talk in a very polite way.

Second grade: They are the people who own the courts; they work out solutions to problems of people who come to court (2).

Third grade: They make people cry (when they admonish them); they listen to all sides and then decide who is telling the truth; they review jury decisions and make the final decision (one of two students who depicted juries as advisors to judges); they vote to decide who will be the Governor or the President; they suggest possible new laws to the President. In addition, one third grader confused judges with lawyers (prosecuting or defending).

Discussion

Based on what they have seen on television (especially "judge" shows), a majority of the students were able to identify one or more specific things that judges do in their courtrooms. These responses were generally accurate for courtrooms in which the judge (rather than a jury) is in fact the arbiter who will decide which side wins the case and what subsequent actions will be taken accordingly. The few students who did mention juries tended to depict them as advisors to the judge. The few students whose responses indicated personal experience with courts depicted judges as ruling in divorce cases. Although the older students generally knew more than the younger ones, grade level differences were less pronounced than usual, presumably because many of the students at each of the grade levels were familiar with some aspects of the judicial role from observing the judges depicted on television.

Government Jobs and Services

Questions 17 and 18 asked the students about the jobs held by people who work for the government and the kinds of services that they provide to people.

Question 17. A lot of people work for the government. What are some of the jobs that they do?

Question 18. Besides making laws, the government also helps people. What are some of the things that the government does for people? . . . How does the government help your family?

A majority (58) of the students either were unable to respond to Question 17 or could only speak in vague generalities in talking about work done for the government (working, helping the government or the President, etc.). Of the remaining students, 22 identified specific government jobs (President, Governor, legislator, judge, lawmaker, etc.), 14 mentioned staff or office work (works on computers, goes to meetings, works as a secretary or assistant to an executive or legislator, etc.), and 12 named "other" jobs (cleaning windows, inventing things for the government, working for the military or police, etc.). Responses to Question 17 were surprisingly poor given what had been said about governmental activities in responses to earlier questions.

The students also had difficulty identifying things that the government does for people. More than a third (34) were unable to respond or could not get beyond vague generalities (helps, does good, etc.). Almost as many (31) confined their response to the general functions of government rather than identifying specific services to individuals or families (keeps us safe, passes good laws, etc.). Of the remaining students, 16 identified safety net services (assistance to poor people or people who have suffered from fires or storm damage, etc.), 10 identified basic community services (police, fire, paramedics, etc.), 8 depicted the government as an all-purpose provider (of homes, factories, grocery stores, etc. to provide everyone with whatever they need), and 10 supplied "other" responses (certifying the safety of consumer products, providing insurance, renewing run-down neighborhoods, etc.). These responses also were surprisingly limited, although most of them were accurate as far as they went. The following examples from average-achieving boys and girls are representative of the responses from students across the four grade levels.

Kindergarten

Jered

17. Helper.

18. Helps them. (How does the government help people?) I don't know. (How does the government help your family?) They give them money. (Why do they give them money?) Because they're poor. (Where does the government get the money?) From the bank. (Where does the bank get the money?) I don't know.

Kate

17. They do other important papers.

18. He helps people so they're not sick. (How does the government help your family?) He helps and I don't know what he helps us with.

First Grade

Chris

17. They work on computers, they . . . I don't know.

18. He gives them food, he gives them something to drink, and I don't know what else. (Who does the government give food and drinks to?) The poor people. (How does the government help your family?) I don't know.

Lauren

17. They give him food and he . . . rings a bell or something, and says, "I need some coffee" or something. And that's why people work for him, and they get paid for it, and they would have lots of money, because they do it every day for him. (OK, are there any other sorts of jobs that people in the government do?) They go answer the door for him and give him packages and stuff.

18. Helps people because their house burned down and they don't have any money, so I think he would loan them some money . . . so they can buy some clothes. (What else does the government do for people?) Brings them food if their house is on fire. (How does the government help your family?) You have to give him checks and when we give him checks he would give us some money back and it would be change. (What else does the government do to help your family?) He says "If your house burns down,

I would make you another one, and you wouldn't have to pay because you signed this thing," and some people don't do it, so some people do, some don't. And helps you by doing that.

Second Grade

Mark

17. I'm not sure.

18. I don't know. (Well, how does the government help your family?) It makes laws for people to follow.

Emily

17. They are like maybe in the Air Force or they're in the sort of like the Navy to help us in case there was a war or something.

18. Gives them money if they lose money, like if they were blind and someone stole their seeing-eye dog, they would help them by making money to get a new one for them. (How does the government help your family?) It's sort of like an insurance to help our family do things, like get a job and stuff.

Third Grade

Dale

17. Some of them make laws for the government and others make new inventions and tell the government if this would be suitable to sell to people, and they make certain things and they might give things to the government, which they probably would. (OK. Can you think of any other jobs where people work for the government?) With my mom, it's the Chamber of Commerce which is for the government. Some people make new kinds of things.

18. They make new things and build new buildings. They tell certain people to make new houses and stuff, or those house builders just decide to make them, and they help people get shelter in the way I just said, and other than that . . . they make grocery stores where we get our food source. (How does the government help your family?) It provides some food sometimes. I went to the capitol on a brunch one time and it was fun. They also provide most of the shelter I have. (How is that?) Well, they provide it because they had these certain kinds of brick or it was this new paint and it just came out right as my house was getting finished and getting the last paint put on, so they gave that to me, so we used that for a little layer over what we had.

Chelsea

17. Some of them just make laws, they can make rules, or almost anybody in the whole United States can make rules.

18. The government can help people by setting laws, because if they don't set laws then people could get hurt really bad because I know somebody whose mom and dad almost killed themselves because they were fighting so hard and they wanted to get a divorce. Somebody helped them. (What are some other things that the government does to help people?) Say that a person was smoking so that that they hurt their lungs. They could help them. They can set laws so people don't get hurt. (How does the government help your family?) If they get hurt, like my dad. He hurt himself and then somebody helped him and that's how I think the government would help.

Grade Level Differences

All of the response categories for Question 17 showed significant relationships with grade level. Younger students were more likely to be unable to respond to the question or to speak only in vague generalities, whereas older students were more likely to generate one or more substantive examples of government jobs.

Grade level differences were less pervasive in the responses to Question 18, although once again the younger students were less able to generate substantive responses. Older students were more likely to generate responses that spoke of general government functions rather than specific services to individuals or families. Somewhat surprisingly, there were no linear relationships with grade level for the remaining response categories. Younger students were not significantly more likely to depict the government as an all-purpose provider, and older students were not significantly more likely to identify safety-net services or basic community services. Finally, there was a nonlinear relationship for "other" responses.

Achievement Level and Gender Differences

The 10 categories for coding responses to Questions 17 and 18 yielded seven significant relationships with grade level but none with achievement level and only two with gender. It is surprising that no significant relationships with achievement level appeared, particularly for categories that showed significant relationships with grade level. The two gender differences appeared in responses to Question 17, where 34 boys but only 24 girls were unable to respond or produced only vague generalities, whereas 11 girls but only 3 boys named staff or office work jobs. Thus, girls were more successful than boys in responding to Question 17. However, there were no gender differences or noteworthy trends in responses to Question 18.

Relationships Among Response Categories

Naming specific government jobs in response to Question 17 was part of the maturity set of responses to the interview as a whole. Students who identified basic community services as things that government provides people were more likely than other students to talk about solving problems as the activity of the Governor or state government, say that laws come from the police, depict judges as "lecturing" defendants about stopping their criminal behavior, and state that the school is owned by the school superintendent, school board, or school district. These students appeared to have more awareness than other students about local government services and activities.

Rare and Unique Responses

Question 17: What do people who work for the government do?

Kindergarten: Help the President; clean windows.

First grade: Build buildings, give people money.

Second grade: Count votes; clean and guard the White House; make sure everyone does their taxes and that roads are good and bridges are safe.

Third grade: Teachers; security people for the President; repair the Governor's mansion and the roads leading to it; make new inventions and give them to the government, work for the Chamber of Commerce (this student's mother did the latter).

Some of the students who were coded for identifying executive staff or office work jobs depicted these workers as providing personal services to the Governor (e.g., getting coffee) rather than performing specifically governmental activities.

Question 18: What are things that the government does for people?

Few students communicated images of government services beyond safety nets or welfare, and many of the latter responses depicted far more personal forms of help than actually occur. Also, some of them described services that ordinarily would be performed by insurance companies (e.g., paying for a new house after a fire) rather than governments.

Kindergarten: Helps them to get a job, talks to them about swimming and stuff (safety?); gives out food in the winter; helps lost children to get home (2); helps keep people healthy and not sick.

First grade: Gives money or food to poor people (2); gives people houses, money, medicine; tells people what to do.

Second grade: Helps businesses; puts up construction signs to warn people about road dangers and reminds them to pay their taxes; prints money; if someone stole a blind person's seeing-eye dog, buy him a new dog—it's like insurance to help our family do things, like get a job.

Third grade: Fix roads, regulate traffic; provide schools and courts; fix up run-down neighborhoods.

Discussion

Responses to Questions about government jobs and functions were surprisingly poor, given how much was said about government in response to previous questions. Many students couldn't respond and many others spoke only about the President or Governor and their "helpers" or about laws. Very few students mentioned roads, schools, parks, or other government institutions or services. It is not that children are unaware of these aspects of their lives and surroundings; it is that they do not yet connect them with their images of government. We believe that a major reason for this is that what little students learn about government focuses on government leaders and the symbols associated with them (e.g., the White House), with little attention given to the specifics of government functioning, and especially the provision of government services. We believe that instructional units on government for children ought to provide much more such information, building on the basic idea that governments provide important infrastructure and services that society needs but that are too big in scope, expense, etc. for individual families to provide for themselves. Such instruction would delineate a much richer picture of public sector activities than most children possess now, and likely would be of more interest and use to them than some of the more abstract notions often emphasized in lessons on government (e.g., how a bill becomes a law).

Taxes

Questions 19-21 addressed students' knowledge about taxes as the main source of government income, and about community services as local government functions paid for with money collected as taxes.

Question 19. It costs money to pay the people who work for the government. Where does this money come from?

Question 20. What are taxes? . . . Who pays them? . . . Who gets that tax money? . . . What do they do with it?

Question 21. Here in our city, we get services from the township police and firefighters. Who pays the police and firefighters? (If appropriate, probe to clarify where the money comes from.)

About 30% (28) of the students were unable to say where the money to pay for government comes from. The remaining students generated the following responses, listed in rough order of sophistication: The government gets the money from banks, ATM machines, or other places where they have or make money (26); the money comes from the government itself because the President or someone who works for the government prints or coins the money (13), the money comes from people/families/wage earners (stated without mention of taxes) (26); the money comes from taxes (29); the student not only mentions taxes but specifically describes the sales tax by saying that when we buy something, a little bit of the total goes to pay the government (16).

Some of the students were coded in more than one of these categories. To better distinguish the level of maturity displayed in the responses, we distinguished between transition responses and mature responses in students' assigned multiple codes. Those who said that the money comes from the government or from banks but also mentioned taxes were coded as transition responses, whereas those who mentioned taxes without mentioning government printing of money or obtaining money from banks were coded as mature responses. Of the 39 students who spoke of the government printing the money or getting it from banks, 10 also mentioned taxes and were coded as transition students. Of the 29 students who mentioned taxes, 19 were considered mature responses because they did not also suggest that the government prints the money or gets it from banks. Overall, then, 28 students were unable to respond, 29 gave relatively immature responses focusing on government printing of money or getting it from banks, 10 gave transition responses mentioning both printing/banks and taxes, 19 gave mature responses only mentioning taxes, and the remaining 10 students gave other responses such as stating that the money comes from the people.

When directly asked what are taxes, 37 students were unable to respond. Of the rest, 33 correctly stated that taxes are money paid to the government, but 21 described them only as bills that you have to pay (without saying who gets paid or why), and 11 described them as bills other than taxes (utility bills, fines, car payments, etc.). These findings replicate previously reported findings indicating a tendency for many children to confuse taxes with other bills.

When asked who owns the police and fire stations, 31 students were unable to respond, 19 said the boss (chief, deputy, etc.), 14 said the people who work in the building, and 36 correctly said the government/Governor/township, etc. Similarly, when asked who pays the police and firefighters, 28 students were unable to respond, 8 said that they are paid by people who use the services (including those who get fined for making non-emergency or false alarm calls), 18 said the President or government without mentioning taxes, 23 correctly said tax money/taxpayers/the people who pay money to the government, and 24 gave "other" responses (e.g., the people who work in the building, the bank, etc.). These findings replicate those of Berti and others who have reported that children often believe that a workplace is owned by the boss and that the boss pays the workers from personal funds or goes to a bank to get the money (merely by asking for it). More students understood that the police and fire stations are owned by the local government than understood that the police and firefighters are paid by the government using tax money.

Overall, between a fourth and a third of the students were able to answer questions about local taxation and government-funded community services, with similar numbers unable to respond and the remaining students operating from a variety of misconceptions (e.g., the buildings are owned by the boss or the people who work there, the workers are paid by the boss from personal funds or from money obtained from banks). The following examples from average-achieving boys and girls are representative of the responses from students across the four grade levels.

Kindergarten

Jered

19. I don't know.

20. Car that takes you home. (OK. That's a taxi. Do you know what tax is? The taxes?) No. (Do you know who gets that tax money?) George Washington. (Does everybody pay taxes or just certain people?) Everybody.

21. The bosses. (Who pays the police and the firefighters?) I don't know.

Kate

19. I think it comes from trees.

20. They're money. (Who pays them? Who pays taxes?) My dad pays taxes sometimes. (Why does he have to pay taxes?) He does rentals. (Now, who gets that tax money?) I don't know. (Well, what do they do with it?) I don't know.

21. I don't know.

First Grade

Chris

19. The stuff that you buy, and then like . . . I don't know.

20. The stuff that you owe for the stuff that you have to give to the government because you've had it for a long while, and you have to pay them back like a few hundred dollars of it to get the car and stuff. (Who pays taxes?) Your parents. (Does everyone pay taxes?) No. (Who doesn't pay taxes?) The kids. (Who gets the tax money?) The government. (What do they use the money for?) They use it for the same thing . . . for cars and stuff . . . they give it to poor people so they can have some money.

21. The government. (Where does the government get the money to pay them?) From the people that pay taxes.

Lauren

19. Your home and mine and other peoples', because they have to pay the government for their mortgage and stuff. (OK. So why do they have to pay the government?) They would have to sell their house, and they would have to pay the government next time because they don't want to lose their house again. (Was there anything else that people have to pay the government for . . . besides the house?) I don't know.

20. It's kinda like a mortgage, but it's different. You have to pay your tax and if you don't, you won't get money back from him. (Who pays taxes?) Us and other people. (Who gets the tax money?) I don't know. (What is done with the tax money? Why do you have to pay it?) Because that's how you get more money from . . . I don't know.

21. If they don't pay all the money, they only pay half of it, but half of it is the government's and half of it's theirs. (Now, who owns them?) The firefighters. (Is there just one firefighter who owns them all, or do all the firefighters own the fire station together?) Well, all of them really own it, but one of the persons bought it and stuff, so they really own it. (Why does one own it and not the other ones?) Because one person has . . . the most money and they pay it. (Who pays the other police and the firefighters who work there?) I don't know. (Where's the money come from to pay them?) The government. (Where does the government get the money to pay the firefighters and the police?) A machine that makes the money and they give it to him.

Second Grade

Mark

19. From the people . . . like if they just give him money for nothing, they might use that.

20. They're like bills that you have to pay. (Who pays taxes?) Your mom and dad. (Who gets the tax money?) Like these people that send them the letters—they tell them that they have to pay your taxes and then you send the money back in the mail or you take it to them. (The people who get the tax money—what do they do with it?) Sometimes if they have laws, then the boss gets some of the money and he pays some of the money to the workers. (Do you know the name of the people who send out those letters and collect the tax money?) No.

21. I'm not sure. (Well, who pays the police and the firefighters?) Sometimes people have to go to court and like if they get a ticket, they have to pay how much it says on the thing. (Who pays the firefighters?) I'm not sure.

Emily

19. The people that got the money from the work, so then the money goes on and on in a cycle. (Where does the money come from to pay the people who are in the Air Force?) From the government to pay those people. (Where does the government get the money from?) The people because they work for them.

20. Those are like to keep your things that you've bought. (Who pays taxes?) The people, and that goes to the government. (What does the government do with the tax money?) Pay the people who work for the Air Force.

21. (Who owns the police and firehouses?) The government. (Who pays the police and the firefighters?) The government and the Governor gives them the money from the taxes.

Third Grade

Dale

19. The President which designs the money. They usually design it in new ways, cause there is a new dollar bill coming out that glows in the dark, so that no one can try to remake one. (Where does the President get the money from?) He usually tells these certain people to make this money, and usually for his job, that money that he makes, he usually tells people ideas, and the ideas would be put into dollars and he'd get paid for getting that. (So he designs the money as well? Is that one of his jobs?) No, only sometimes does he actually design the money, but his job is to help the country and solve problems.

20. Taxes are sort of like money for poor people, or they add taxes on because that's just what maybe they put down a price and they decide to make it a little higher and add that price on and just say "tax included." (Who pays taxes?) Usually everybody. The President I don't think does, but the government [Governor] might or might not, and usually all the other people do. (Who gets the tax money?) Probably some of it—maybe 50% goes to the poor and the other bit goes to the people that need that and the people who really took some time to it and added some things on to it. (What do those people do with the tax money?) It usually becomes money that they probably give to some other people for certain things that they've done to their house, and it keeps going around and around and around.

21. (Who owns the police stations and firehouses?) I think Deputy Jones does the police station, and he does the hospital. (Who pays the police and the firefighters?) Usually the patients that they save will help and they would pay them $10, $15, or $20 for saving their lives or helping them in some way. If that help is used for helping tons of people, they'll get help from the government, usually. (How do they decide that?) Well, maybe more than 50% of the people in that area gets help, then they probably do that.

Chelsea

19. I think from charity or taxes.

20. My mom buys groceries every Friday and she has to spend $30 on groceries and it came to $30.47 because of taxes. I think taxes help to pay the government. (Who pays taxes?) Everybody. (Can you tell me who else gets the tax money?) Charity can have the tax money or like a police station can have the tax money or almost anything. (Can you tell me who else gets tax money?) The President, the Vice President, the Governor, the Vice Governor. (What do they do with that money?) They give it to charities and to people who don't have a lot of money and some people drop off stuff at charities for people who don't have enough money to have stuff.

21. (Who owns the police stations and firehouses?) The managers. (Who pays the police and firefighters?) I think the tax money gives it to the manager and the manager gives it to the people that work. The President and the Governor gives the manager the money and the manager gives the police money. (Where does the manager of the firehouse work?) I think they have a little office that they work in.

Grade Level Differences

Significant relationships with grade level were frequent for this set of questions. On each question, the younger students were less able to respond and the older students were more able to provide substantive responses, especially in categories representing more sophisticated responses. Concerning where the money to pay for government comes from, more younger students said from banks or ATM machines, whereas more older students made either transition or mature responses that included reference to taxes (and identified the sales tax specifically). A nonlinear relationship appeared for the statement that the money comes from people/families/wage earners. This statement appeared more often in kindergarteners and second graders than first graders or third graders.

Thirty of the 33 correct responses to the question "What are taxes" came from second- and third-grade students. However, the older students also were more likely than the younger ones to confuse taxes with utility bills, fines, interest or finance payments, etc. This is another example of a positive relationship between grade level and an incorrect response that appeared because of more fundamental differences in the students' ability to generate substantive responses to the question, rather than because accurate knowledge had deteriorated into inaccurate knowledge. The general developmental trend here is from inability to respond at all to responses that confused taxes with other bills, to accurate definitions of taxes as money paid to the government.

Older students were more likely than younger ones to accurately state that the government/Governor/township owns the police and fire stations. The response that these buildings are owned by the people who work in them showed a nonlinear relationship, peaking in first grade. This nonlinear relationship makes sense in that the youngest students were less likely than first graders to be able to respond at all, whereas the older students were less likely to respond incorrectly.

Finally, the older students were more likely to correctly state that the police and firefighters are paid by local governments using tax money, although they also were more likely to say that these community employees were paid by the President or the government, without mentioning taxes. The latter finding is another example of an incorrect response appearing more frequently among older students as part of a larger pattern that included the inability of many younger students to respond at all. The developmental pattern in responses to questions about who pays police and firefighters went from inability to respond at all to responses that did not include taxes to responses showing clear understanding that these people are paid using tax money.

Achievement Level and Gender Differences

The 21 categories for coding responses to Questions 19-21 yielded 16 significant relationships with grade level but only 7 with achievement level and 2 with gender. The achievement level differences indicated that higher achievers were more likely than lower achievers to mention taxes in talking about where the money to pay for government comes from, to talk about the sales tax specifically, to be coded for making mature responses to Question 19, and to correctly identify taxes as money paid to the government. In contrast, more lower achievers were unable to define taxes and gave unsophisticated responses when asked who pays the police and firefighters (e.g., the bank). In addition, there was a nonlinear relationship for stating that the police and firefighters are paid by people who use their services or get fined for making non-emergency or false alarm calls. This response was coded for three lower achievers and five average achievers but no high achievers. Taken together, the achievement level relationships indicate that the higher achievers generated more accurate responses than the lower achievers.

The gender differences appeared because 13 girls but only 6 boys were coded for mature responses to Question 19 and 9 boys but only 2 girls were coded for confusing taxes with other bills. Along with several nonsignificant trends in the same directions, these data indicate that the girls knew more than the boys about taxes.

Relationships Among Response Categories

Several response categories from this set were part of the maturity set for the interview as a whole. These included the transition responses and the most mature responses to Question 19 that mentioned taxation, defining taxes as money paid to the government, saying that the police and fire stations are owned by the government/Governor/ township, and saying that the police and firefighters are paid with tax money. These responses also were highly correlated with one another. In addition, students who made mature responses to Question 19 and students who answered Question 20 by defining taxes as money paid to the government (identifying taxes by name) were more likely than other students to say that the government owns schools, to say that teachers are paid with tax money, and to distinguish between public and private schools on the basis of the sources of their funding.

Students who described police and fire stations as owned by "the boss" (chief, deputy etc.) were more likely than other students to depict kings and queens as living a life of luxury. Students who said that the police and fire stations are owned by the people who work in the building were more likely than other students to say that money to run the government is obtained from banks or ATM machines. Students who said that the President or Governor pays the police and firefighters were more likely than other students to say that the Governor or government pays teachers and to describe the President as burdened with daunting responsibilities.

Rare and Unique Responses

Question 19: Where does the government get the money to pay for the people it employs?

Multiple coding of Categories 1, 2, and/or 3 sometimes occurred because students would initially say that the government gets the money from banks, but when asked where the banks get the money, would talk about the people or place that makes money.

Kindergarten: From kings and queens.

First grade: None.

Second grade: Banks get "spare money" from rich people; taxes, phone bills, car and house payments (student views the government as a universal lender and provider of utilities as well as services).

Third grade: The President gets money from another country or something; the President is rich and also gets money from (rich) former Presidents; from a house tax (this was the only mention of a millage/property tax, if in fact this is what the student was referring to).

Question 20: What are taxes?

This question had to be clarified for some students who initially began defining tacks or taxis. In addition, there was frequent confusion of taxes with tax bills or refund checks that come in envelopes, as well as with other bills and with statements that you have to pay your taxes in order to keep your house.

Although 16 students described sales taxes from experiences in stores, only one student mentioned income taxes and one other mentioned a "house tax." It was not clear from the latter responses that either student understood the basis for these taxes. That is, they only understood that their parents had to pay them.

Question 21A: Who owns the police and fire stations?

All responses were accommodated within the coding categories for this question.

Question 21B: Who pays the police and firefighters?

Kindergarten: The judge.

First grade: Bill Clinton; the judge; people who call when there is no emergency.

Second grade: The boss; the boss pays the police but the people who get their services pay the firefighters.

Third grade: None.

Discussion

The students' answers to tax-related questions revealed developmental trends similar to those reported in previous research. Some students were unable to generate any response at all. Others generated responses that reflected misconceptions, such as that governmental leaders pay government employees with money from their own personal funds or money obtained from banks (simply by going to get it). Some knew that the government manufactures money (i.e., prints bills and mints coins), so they reasoned that the government could simply manufacture the money needed to pay its employees. Finally, the most mature students understood that governments collect taxes to fund their activities, including construction of police and fire stations and payment of police and firefighters.

Most of the students who used the word "taxes" understood them as bills to be paid. However, some of these students confused taxes with utility bills, house or car payments, or other bills rather than defining them as money paid to the government. Students who did understand that taxes are money paid to the government usually also understood that most of the money used to fund government activities comes from these taxes.

In general, the older students gave more knowledgeable and mature responses, whereas younger students were more likely to be unable to respond or to generate less mature responses (e.g., that the government gets money to pay its employees from banks or ATM machines). Higher achievers also generally gave more mature responses than lower achievers, although the achievement level differences were much smaller than the grade level differences. Finally, the girls knew more about taxes than the boys. Only two of the gender differences were strong enough to reach statistical significance, but these differences favoring girls were supported by several nonsignificant trends on other key categories. We find it noteworthy that boys seemed to know a little bit more about most other aspects of politics and government, but girls seemed to know a little bit more about taxes. However, we are unable to offer an explanation for this difference.

Public and Private Schools

The next two questions addressed students' knowledge about public and private schools, probing in particular their understanding of a difference in the basis for their funding.

Question 22. The kids in this city go to schools like this one. Who owns this school? . . . Who pays the teachers? (If appropriate, probe to establish where the money comes from.)

Question 23. This school is a public school. What other kinds of schools are there, besides public schools? (Probe for whatever differences the child can mention, but especially information about who pays for the schools.)

Concerning who owns the school, 14 students were unable to respond and a majority (57) said that the school was owned by the principal (or in a few cases, the boss or the assistant principal). Less frequent responses included the people who work in the building, the teachers, or the principal and teachers together (12), the government/Governor (11), or the school superintendent/school board/school district (7).

Concerning who pays the teachers, 25 students could not respond and 47 said the principal (29 implying that the principal would be using his or her own money but 18 implying that the principal would be using money that comes from the parents, taxes, or the government). Other responses included taxes/tax payers (13), the President or government (no mention of taxes) (9), fees collected for yearbooks, supplies, etc. (7), or the students' parents (suggested by students who thought that public schools are funded just like private schools) (7).

Concerning kinds of schools besides public schools, a majority (64) of the students were unable to respond. The remaining students suggested home schools (10), Catholic or other church-sponsored schools (7), and a variety of "other" types of schools such as reading schools or tutorial schools (21). Only 6 students distinguished between public and private schools by stating that the public schools are paid for with tax money.

Overall, the responses to this set of questions indicate that most of the students did not realize that public schools are provided by governments and funded by taxpayers. Instead, those who were able to respond thought that the principal owned the school and funded its operations, that their parents funded the school's operations through payment of tuition or fees, or that the President, the Governor, or government provided the school (not understanding that the money to do so was collected as taxes). The students' knowledge about the ownership and funding of schools was noticeably less developed than their knowledge about the ownership and funding of police and fire stations. The following examples from average-achieving boys and girls are representative of the responses from students across the four grade levels.

Kindergarten

Jered

22. I don't know. (Who pays the teachers?) The kids' moms.

23. I don't know.

Kate

22. Mr. Principal. (Well, who pays the teachers?) Mr. Principal. (Where does he get the money from?) He gets it from the bank. (And where does the bank get the money from?) I don't know. (Why would the bank give Mr. Principal money?) You put money in a slot, and then it comes out when you need it.

23. I don't know.

First Grade

Chris

22. I don't know. (Who pays the teachers?) The government. (Where does the government get the money?) From the people that pay taxes.

23. I don't know.

Lauren

22. Miss Principal. (Who pays the teachers?) Um . . . Engler. (Where does Engler get the money to pay the teachers?) From when the people pay him. (And who pays him?) My grandma and . . . tons of people. (And why do they pay him?) So they can have their home. (OK, do they have to pay Engler, or do they want to pay him?) They don't have to, but some people want to.

23. High schools, elementary schools, middle school. (Who pays the teachers then?) Bill Clinton. (OK, and where does Bill Clinton get the money?) My mom and dad and . . . all the other people. (Why do your mom and dad give Bill Clinton the money for the schools?) So we can keep our school.

Second Grade

Mark

22. Mrs. Principal. (Who pays the teachers?) Mrs. Principal, I think. (Where does she get the money from?) I guess she works at another job and the people there pay her and she can use that money to pay the teachers. (Why would she want to pay the teachers?) Because they teach the students a lot of stuff.

23. Private schools. (What's the difference between a public school like this one and a private school?) Private schools are like only certain people get in there. (Well, who owns private schools? . . . Who pays the teachers at the private schools?) I don't know.

Emily

22. Mrs. Principal. (Who pays the teachers?) Mrs. Principal. (And where does she get her money from?) The Governor. (Where does the Governor get the money from?) The taxes. (Where does the tax money come from?) The people.

23. There's private schools, there's Catholic schools, there's Episcopalian schools and Christian schools. (How are public schools different from private schools?) Public schools—anybody can come to them, but private schools, you can only go to that one and it's like private and only a certain person can go to a private one. (Who pays the teachers at private schools?) The principal. (Where does the principal get the money from?) From the Governor. (So who owns these schools?) The principal, but the Governor pays the principal and the principal pays the teachers.

Third Grade

Dale

22. Mr. Principal. (Who pays the teachers?) Mr. Principal and the government for doing the job and teaching the children useful things for when they grow up. Then kids like me will teach other people and the cycle will go on. (You said Mr. Principal and the government. What do you mean by that?) Well, Mr. Principal pays them for helping kids learn certain things so they can go on to higher grades, so the kids go higher and higher until they finally make it to where he usually is, and if they want to be principal, they'll do so when they grow up. (Where does the money come from?) Usually the government or whoever pays him. (Who would pay him?) Probably the people . . . maybe he helps other schools and those schools would pay him for being good and helping, and that money would be given to them and they give so-and-so back a little. They'd just keep doing that cycle.

23. A religious school and a regular school. (What's the difference between a public school and a regular school?) A regular school could be owned by anyone and anyone can go in it, but public schools usually have older people in that state or area. (What's the difference between this public school and a religious school?) Religious school is they usually teach other things like religion and some sort of regular and some sort of

public school things, only it's not a public school. (Who owns this school?) Mr. Principal. He owns this school, and some other people probably owned it before him. (Who owns regular schools?) Usually anyone that's got good skills at that can do that job, as long as they're worthy of doing the things that they're supposed to do. (Who owns religious schools?) People that are really into religion, like if there's this person that reads a Bible a lot or something.

Chelsea

22. I think Mr. Principal. (Where does Mr. Principal get the money to pay the teachers?) From the stuff because you had to pay $75.00 to go to the camp and half of it goes to the camp and half of it goes to here and that's to buy supplies and I think all of the people. That's how Mr. Principal gets the money. I think he gives supplies to the teachers. (So parents pay money for activities and then Mr. Principal uses the extra money to pay the teachers?) Yeah, but it costs . . . we sell candy to get $75.00. We have to pay for the box of candy and then how much we get of the money if we get paid. There's 40 candy bars in each box and they cost $1.00 for each candy bar and then all you need is 35 more.

23. It's like a church and they have . . . Catholic. (Who pays for those schools?) I don't know.

Grade Level Differences

Younger students were less able to respond to each of these questions, and older students were more likely to provide more mature responses. In particular, more older students said that the school is owned by the superintendent/school board/school district or by the Governor/government, that teachers are paid using tax money (via the government) or are paid by the principal using money from the parents, taxes, or the government, and to distinguish between public and private schools on the basis of their funding sources. Older students also were more likely than younger students to name church-sponsored schools or "other" schools when asked to identify schools that are not public schools. Finally, there was a nonlinear relationship with grade level for mention of home schools. These were mentioned more often by second graders than by other students.

Achievement Level and Gender Differences

The 17 categories for coding responses to Questions 22 and 23 yielded 11 significant relationships with grade level but only 4 with achievement level and 2 with gender. One of the achievement level differences was unexpected: Higher achievers were more likely than lower achievers to be unable to respond when asked who owned their school. This finding was not completely surprising, however, for two reasons. First, similar findings have appeared occasionally in our interview studies on items for which very few students possess confident knowledge (so they are faced with either taking a guess or saying "I don't know."). We have found that, in these situations, higher achievers are more likely to say "I don't know" than to hazard a guess that they are almost certain is incorrect. In contrast, lower achievers are much less inhibited about taking guesses or even blurting out anything they can think of that may be even tangentially relevant to the question. We have interpreted this difference as part of a larger difference in familiarity and comfort with answering questions incorrectly. Lower achievers do this frequently and apparently become accustomed to it, but higher achievers often would rather say "I don't know" than verbalize a response in which they have little confidence. Second, in this context, the higher achievers' reticence was justified: Most of the substantive responses, especially those of lower achievers, were incorrect (e.g., the school is owned by the principal or the teachers).

The remaining significant relationships with achievement level indicated that higher achievers were more likely than lower achievers to identify church-affiliated schools as alternatives to public schools and to distinguish between public and private schools on the basis of their funding sources, whereas lower achievers were more likely to say that teachers are paid by the President or the government (without mentioning taxes) or that they are paid with money collected as fees for yearbooks or supplies. Overall, there were fewer noteworthy achievement level differences in this set of responses than in most others.

The two significant gender differences occurred because six boys but only one girl suggested that teachers were paid from money collected as fees for yearbooks or supplies, and eight boys but only two girls identified home schools as alternatives to public schools. The more important categories (indicating some knowledge of public ownership of schools and funding through taxes) showed small differences favoring girls, but overall, the responses of boys and girls to this set of questions were much more similar than different.

Relationships Among Response Categories

Students who said that the principal owned the school were more likely than other students to suggest that the principal paid the teachers using his or her own money. Students who said that the school was owned by the superintendent/school board/school district were more likely than other students to be able to identify private alternatives to public schools and to distinguish between public and private schools on the basis of their sources of funding. Students who said that the school was owned by the government or Governor were more likely than other students to identify taxes as the source of money to pay people who worked for the government and to know that the police and fire stations are owned by the government and that the police and firefighters are paid with tax money. Students who said that the school was owned by the government also were more likely than other students to say that the teachers are paid using tax money and to distinguish between public and private schools on the basis of their funding.

Students who said that teachers are paid using tax money were more likely than other students to generate mature responses to preceding questions asking where the money to pay for government workers comes from, what are taxes, and who owns the police and fire stations and pays the people who work there. There was an especially strong relationship between saying that teachers are paid with tax money and saying that police and firefighters are paid with tax money. Finally, identifying "other" types of private schools and distinguishing between public and private schools on the basis of their sources of funding were among the responses included in the maturity set for the interview as a whole.

Rare and Unique Responses

Question 22A: Who owns the school?

Kindergarten: None.

First grade: The janitors; all of us.

Second grade: One second grader told a lengthy story about how the school originally was owned by the person that it is named after, but now it is owned by the superintendent or the school counselor, then elaborated (also inaccurately) about how the previous superintendent was a bad person who is currently "on the lam" because "he took a lot of money away from us.").

Third grade: The people who built it and who tell the principals and teachers what to do; the city's public community service; the school district (which the student described as "a little bit of the government and the people who built the school or something like that, and the principals or something.").

Question 22B: Who pays the teachers?

Kindergarten: "The people who made the money" come and give it to the school secretary, then she puts it in envelopes and leaves it in the teachers' boxes.

First grade: The teachers' teachers pay them (couldn't explain who these people were); teachers are paid from fees collected for yearbooks and supplies.

Second grade: John Engler (the Governor); money from rich people; the U.S. government or the PTO; the principal, using money from "the people that tell the teachers what they're supposed to teach."

Third grade: The principal gets money from one of the janitors; fees collected for camp and the proceeds from candy sales.

Question 23: Kinds of schools besides public schools.

Most students either made no clear distinction between public and private schools or said that religious schools teach religion or do other religion-related things that public schools don't do or that private schools are more exclusive (only certain students can get in).

Only six students at least attempted to distinguish public from private schools on the basis of their funding sources. Two of these clearly said that private school parents support their schools whereas public schools are supported by the government. The other four made transition responses indicating that private school parents paid private school teachers but being unclear about the funding of public schools (thinking either that the government pays all teachers but for some reason private schools cost more, or else that all schools are paid for by the parents of the students who attend them, but for some reason public schools cost less).

Kindergarten: Daycare; a school in Colorado that had kids getting shot.

First grade: Private schools have sleepovers and harder work; schools of fish; week schools, where you stay there for a week.

Second grade: Private schools that only admit “certain people;” boarding schools—you live there instead of just going for the day; Christian schools and Jewish schools—you have to pay to get into private schools, but I’m not sure about public schools; reading schools; private schools where you have to wear uniforms; Catholic, Episcopalian, and Christian schools that only let in certain people; Catholic schools—they teach different things than we learn; language schools for immigrants and special schools for the deaf that teach sign language; private schools are smaller and parents have to pay to send their children there. In addition, the following three second graders made more extensive comments.

“Public school teachers have to follow a curriculum but private school teachers can do anything they want. Private schools cost a lot more (can’t say why) and people who have the money are willing to pay it because they think that the private schools are better.”

“Schools only for boys or only for girls, and boarding schools. At private schools you have to dress nicely, like at church, in a tuxedo or something. My dad went to one and told me that they had metal doors to lock people in.”

“I went to a private school before, where you have to sign up to enter and you have to pay money for it and you can’t just let every kid go there. There’s a very little amount of kids. I thought that was pretty nice. (How do they decide to go there?) They don’t decide. What they do is make sure the kids are very healthy. They look at their shot cards and all of those kinds of things. It doesn’t matter who’s black and white. That’s not anything to do with it. They just make sure that they can make friends. They’re good at social stuff, and they make sure that they’re OK. (So what is the difference between a private preschool and a public preschool?) Public preschools, anyone can go there. They’ll treat them the same. But in a private preschool you have to pay more money and you get better service than you would in a public school—no offense to this school, I really like it too. (What do you mean by better service?) There's more teachers and different classes and you get bigger classes (i.e., classrooms). I had a humungous class the size of a church. Actually, it was a church. I thought that was pretty nice and I did get good service. I had two different teachers because at lunch time, if I paid for it, I could go to a different preschool class and they'd take me outside. It was sort of like an afternoon daycare. (You said something about paying money.) You have to pay more money because if you were just going to pay the regular amount for very good service and everything because they work hard to get better people. (Do you pay for public school?) Yes, starting from the beginning. If you leave that school you get your money back for the rest of the grades."

Third grade: Charter schools—a charter school is in a charter township but a public schools is "around in the public" (interesting but incorrect theory); academies—they have longer school days and "want you to be prepared" (this student's brother went to one of these academies); private school is where the teacher just teaches one kid; special schools for the handicapped; religious schools where they teach religion; Catholic schools; private schools where they only let in certain people; boarding school is where you live and private school is where they only take certain people—the government pays for public and private schools but not for home schools; Christian schools where they have to wear uniforms, study the Bible, leave class to go to religion services, and have different science than we do; boarding schools that have a shorter school year and where the parents have to pay (not sure about public schools); Catholic schools and private schools (goes on to state clearly that private school parents have to pay to send their children there but public schools are free because the teachers are paid by the government from tax money).

Discussion

A few students displayed considerable knowledge about the variety of schools available and the nature of their funding, but most students could not identify any alternatives to public schools and most of those who could were not clear about how the various types of schools are funded. Only a small minority of students understood that their own public school was owned by the local government and that its teachers were paid using tax money. Many more of them could not respond to these questions or thought that the school was owned by the principal or some other person or group who worked in the building and that the teachers were paid by the principal, the President or Governor, or the parents of students attending the school. Most kindergarteners and first graders had no knowledge of alternatives to public schools, but many second and third graders identified various types of private schools (often describing them as more exclusive, having higher academic standards, or offering more curricular alternatives or extracurricular attractions than their school). Very few students, however, clearly understood that public schools are free for all because they are supported using tax money, whereas private schools are funded through private sources. The students' knowledge about public ownership and funding of schools was noticeably less developed than their parallel knowledge about police and fire stations.

The older students' responses were notably more sophisticated than those of the younger students, but within a larger context of very limited knowledge about the funding bases for public and private schooling. Achievement level and gender differences were infrequent in number and minor in significance for this set of questions.

Presidential Aspirations

The final question asked students whether they would like to be President when they grew up. Follow-up probes focused on eliciting reasons why the presidency would or would not be a desirable job.

Question 24. Would you like to President when you grow up? (Why or why not?)

Reflecting the findings of surveys conducted in recent years, a majority (56) of the students said that they would not want to be President when they grew up, 18 more were undecided, and only 22 said yes. Follow-up probes yielded responses from 45 students concerning what would be good about being President and from 53 students concerning what would not be so good. Frequently mentioned positive aspects of being President included the perquisites that come with the office (you get to live in the White House, have a bowling alley or swimming pool in the house, get free cars, etc.) (21), power to issue orders, make laws, and make things happen (12), the opportunity to do good for the country by making things more fair, helping the needy, etc. (12), and "other" (fame, popularity, travel, being supplied with lots of lawyers) (8). Negatives associated with the office included having to work long and hard, with little time for recreation or your family (31), daunting responsibilities (11), being required to do a lot of work that is not enjoyable because it involves going to meetings and writing a lot, etc. (10), and "other" (you might get sent to jail or be killed, you might not get reelected, etc.) (13). Clearly, despite most students' tendencies to view Presidents as benevolent and powerful leaders, only a minority of them would aspire to the office. The following examples from average-achieving boys and girls are representative of the responses from students across the four grade levels.

Kindergarten

Jered

24. Yes. (Why would you like to be President?) I don't know.

Kate

24. No. (Why not?) Because I don't wanna. (What would you rather do?) I would rather be a veterinarian.

First Grade

Chris

24. No. (Why not?) Because I don't want to work that . . . yeah, maybe, because you get a bowling alley in your house and you get a swimming pool in your house, but you have to do very hard work.

Lauren

24. No. (Why not?) Because I want to be a teacher. (What do you think would be hard about being President?) I don't think I would be smart enough . . . you make all the rules. (Why would that be so hard?) Because I don't know if I could think of any rules, like if so and so did something wrong and I don't know if I could do any rules. (What would be nice about being President?) I would have a swimming pool.

Second Grade

Mark

24. No, because I would want to play sports and stuff. (What sport do you want to specialize in?) Hockey and baseball. (What would be the best things about being President?) Running the country. (What would be the worst thing about being President?) If the President didn't get in the country.

Emily

24. Yeah. (Why?) Because it sounds like a special job and I think I can do it. (What parts of it do you think you could do well?) Make some laws and do better things like make people only go to school three days a week.

Third Grade

Dale

24. Maybe, and then again, maybe not. I've had lots of things I'd like to be. A meteorologist, a herpetologist, I'd like to be a scientist, and I'd like to be a principal, and I'm trying to pick one as I get older. (What's a herpetologist?) A herpetologist studies reptiles, a meteorologist studies the weather, and a scientist studies basically anything, and principals help schools. (What one are you leaning toward?) Probably President and herpetologist.

Chelsea

24. Not really. (Why not?) I don't know. I just don't want to.

Grade Level Differences

There were no grade level differences in aspirations for the Presidency, but such differences did appear in the students' responses concerning positive and negative features of the office. Younger students were less able to respond to these questions. Older students were more likely to identify power and "other" positive features of the office and to identify hard work, daunting responsibilities, and "other" negative features. Thus, the older students had more to say about what it might be like to be President, but they were neither more nor less likely than younger students to want to be President.

Achievement Level and Gender Differences

The 13 categories for coding responses to Question 24 yielded seven significant relationships with grade level but none with achievement level and four with gender. The gender differences appeared because more girls than boys said that they would like to be President and identified perquisites and the opportunity to do good for the country as positive features of the office. There were no significant gender differences in identifications of negative features of the office, but the nonsignificant trends indicated a tendency for boys to identify more of these negative features. Unsurprisingly, students who said that they would like to be President were more likely to identify positive features of the office and students who said that they would not want to be President were more likely to identify negative features. Only about 30% of the girls and about 15% of the boys stated unequivocally that they would like to be President when they grew up. In contrast, 70% of the boys and almost half of the girls stated unequivocally that they would not.

Relationships Among Response Categories

The students' responses to the question about whether they would like to be President when they grew up (yes, undecided, or no) did not correlate significantly with their responses to other questions in the interview, except for the tendency for those who said yes to identify positive features of the office and those who said no to identify negative features.

Students who said that the power to make laws, issue orders, or make things happen was an attractive feature of the presidency were more likely than other students to define government as the people who make or enforce laws, identify vision/policies as what they would look for in a presidential candidate, give realistic examples of problem solving in talking about the activities of Presidents and Governors, and depict judges as deciding guilt or innocence in criminal cases. In short, these students envisioned political leaders as people who make decisions that affect the lives of others or the policies of the state or nation.

Students who identified opportunities to do good for the country as a positive feature of the presidency were more likely than other students to depict the President working together with other people in the government to make good decisions or develop new laws.

Students who mentioned personal perquisites as desirable features of the presidency were more likely than other students to depict staff people providing personal services to the leader when asked about the activities of people who work for the government (Question 17).

Students who identified long hours and hard work as a negative feature of the presidency were more likely than other students to mention competence as a quality they would look for in a presidential candidate.

Students who mentioned daunting responsibilities as a negative feature of the presidency were more likely than other students to talk about making/enforcing laws, running the country, or solving problems when asked about the activities of government, to know about the age qualification for presidential candidates, to mention competence and vision/policies as qualities they would look for in a presidential candidate, and to talk about solving problems in describing the activities of Presidents and Governors. They also were more likely than other students to think that Presidents pay police and firefighters. In short, these students were among those who viewed the President as personally keeping the country running smoothly, but their images of what is involved in carrying out these activities featured daunting responsibilities and an exhausting work schedule rather than exercising power or basking in riches and perquisites.

Rare and Unique Responses

Some students volunteered or were asked what they wanted to do instead of or as an alternative to becoming President. Their answers are given below.

Kindergarten: Firefighter; hockey player; veterinarian; horse trainer; doctor.

First grade: Veterinarian (2); hockey player; ballerina; teacher.

Second grade: Build cars; hockey or basketball player; baseball player; someone who protects wildlife; professional hockey player; professional wrestler; artist or computer work; nurse; medical laboratory technician (like her mother); teacher. In addition, one second grader said, "I don't know (if I want to be President). I have a lot on my mind. I want to be rich. I want to marry someone rich, not only for his money, but so that I can get more jobs and more money. I think I'm going to have a husband, but I'm hoping I'm not going to and I'll be taking care of puppies as them for my children."

Third grade: Teacher (2); veterinarian (2); lawyer or policeman; stay home and take care of my kids; basketball player; mechanic (like his father); scientist (probably a meteorologist or herpetologist) or else a principal; doctor; soccer player; dentist; microbiologist.

Question 24B: What are positive features of the presidency?

Kindergarten: You get to have lots of lawyers (thinking of Clinton); it's a lot of money—I also want to marry someone rich.

First grade: You have a bowling alley and swimming pool in your home; I could tell people to make more toys.

Second grade: I could talk to other people and travel to other towns; you get paid and you get help in your work; you can make new laws, like having school only for three days a week; you get to live in a big house with an indoor swimming pool.

Third grade: Every day when the mail comes, it would probably be more money coming in for you; the White House might have secret doors to discover; you get to travel a lot.

Question 24C: What are negative features of the presidency?

The majority of students who had no interest in being President viewed the job either as an extremely difficult and time-demanding one or as one with daunting responsibilities that would induce anxiety or guilt if one failed to carry them out successfully.

Kindergarten: I would have to write a lot; if you don't follow the rules, you can be sent to jail; I wouldn't like the job because it is too much sitting quietly (adds that he would like to exercise his legs more such as by playing sports).

First grade: Some people don't like the President and might try to kill him; you have to make all the rules, and I don't know if I'm smart enough to do that; you have to know what to say when you speak into the microphone; I might be a bad President—like if they said they want some income and I didn't know what to do.

Second grade: You might not get reelected; all the paperwork and traveling (traveling was a negative for this student but a positive for other students).

"No—I wouldn't want to get into all that presidential stuff. I wouldn't like to be a Democrat or a Republican—any of those parties. I just want to be a normal worker when I grow up. I don't want to be President. (Can you think of what would make the job of President difficult?) Well, like you're in charge of the country and you have to do a lot of work. Somebody would think that you just lay back and sit down and watch TV or something, but you can't. You have to run the country, and it's hard. (What would be interesting or good about being President?) Well, when you have time off, you're going to do very fun things. (Like what?) Well, if I ever wanted to be President, I would think of having fun as using videogames, but that would be using taxes for something that you don't need, but if you used your own money, then it would be fine. (You told me you wouldn't want to be a Republican or a Democrat or one of those parties. Why not?) I wouldn't want to get into all that political stuff. Political stuff is like . . . I don't know what political stuff is, but I wouldn't want to get into it."

Third grade: I don't know much about being President and I probably wouldn't learn that fast (said by a low achiever); you have guards that follow you around and watch you all the time, even when you go to the bathroom; you would probably "get nervous or something" (with the heavy responsibilities of the job); it's a big responsibility and I wouldn't want to mess it up; you can't run again (term limits); if you messed up on something, it would mess up the whole country; it's more of a boy thing—a girl would have trouble getting elected (this was the only girl that said anything like this); someone might ask you a hard question (that you wouldn't be able to answer), and photographers are always taking your picture, even when you don't want them to, like with Michael Jordan.

Discussion

It is disturbing that less than a fourth of the students unequivocally said that they would like to be President when they grew up, and that many of these students were more focused on the perquisites attached to the office than on opportunities to use the power of the office for the good of the country. Furthermore, even though most of these students attributed near-omnipotent power to the presidency, more of them associated the office with long hours, daunting responsibilities, and boring work rather than with exciting opportunities to serve the nation and make things happen. Some of this can be attributed to filter-down effects of the "argument culture," particularly in negative responses to "political stuff," the need for lawyers to keep you out of jail, and so on. It appears to us that the nation in general, the schools in particular, and the social studies curriculum most especially, need to do a better job of emphasizing the common good, helping students to appreciate the many services and functions that governments perform, and socializing students to aspire to public service careers.

General Discussion

To the extent that our questions overlapped with questions asked in earlier studies, the responses they elicited from our K-3 students mostly replicated trends reported in previous research. Most students projected images of a benevolent society in which dedicated and competent people working for the government provide individuals and families with whatever they need and address whatever problems face the nation as a whole. They were much more aware of the administrative than the judicial and especially the legislative branches of governments, and they tended to view Presidents as godlike figures notable for their power to get things done and their benevolence and caring about everyone's needs.

Lacking knowledge about hierarchical levels of government and the specific functions performed at each level, they focused on the President as they key law- and decision-maker, assisted by Governors, judges, and other "helpers." Early images of political leadership tended to be limited to symbol recognition (the President "signs papers," "makes speeches," or "has meetings"). Later images were better connected to governmental processes or functions, but still very general (the President "makes laws," "runs the country," or "solves problems"). There was little or no awareness of the division of labor between the President and other office holders, the roles of political parties or lobbies, or the role of taxes in funding governmental activities.

A few trends contrasted with findings reported previously: In addition to or instead of portraying the government as a benevolent provider, some students (especially when talking about laws) depicted it as restrictive or oppressive. Also, although a previous study found that children tended to think of laws as longstanding and unchanging, we found that two-thirds of the students whom we interviewed knew that laws can be changed.

Responses to our initial question indicated that the students in general and the younger ones in particular were unable to say much when asked to define government, and those who did respond often confused the term "government" with the term "Governor" or otherwise identified the government with an individual person. Concerning what government does, they emphasized making and enforcing laws, running the country and solving problems, or helping people in need. Relatively neutral responses emphasizing making laws and running the country were more frequent than either very positive responses depicting government as benevolent or very negative responses depicting government as oppressive.

Certain subgroups of students emphasized particular themes throughout their interviews. Those who emphasized laws in their responses to the first question were more likely than other students to talk about making laws in describing what governments do to solve problems and more likely to display knowledge of specific laws in responding to later questions. Those who talked about running the country and solving problems were more likely than other students to routinely portray a well-ordered society run by dedicated and competent professionals. Those who talked about helping people in need tended to be consistent in portraying the government as helping people and the President and other government leaders as benevolent and virtuous individuals oriented toward helping others.

Most second and third graders knew that the President is the head of the government, could name the current President (Bill Clinton), and knew that he was President because he won an election. The younger students tended to be vague or incorrect about who headed the government (often confusing the President with the Governor of the state), and they were more likely to talk about virtues (honest, hard working, good speaker, etc.) than about elections when explaining how one gets to be the President. Although more than half of the students did not realize that Presidents are elected, none thought that the title was hereditary. Instead, they assumed that the new President would be chosen by the old President or governmental leaders, typically on the basis of competence or other evidence of deservingness displayed in prior government service. Thus, even young children who do not understand much about our form of government already have learned that our country is neither a monarchy nor a totalitarian state, and have been conditioned to view it as a meritocracy.

Almost half of the students understood that there was an age qualification for running for President. Otherwise, only third graders were likely to suggest factors that might disqualify a person from the office. Some of these ideas were accurate (criminality, prior terms in office). Others were technically inaccurate but understandable given base rates (no women or poor people).

When asked to compare Presidents with kings or queens, most students focused on what they knew about kings or queens rather than on comparisons with Presidents. Their responses reflected images of kings and queens drawn from children's literature and videos (live in castles or palaces, wear crowns and royal robes, live lives of luxury, etc.). A few responses reflected exposure to disputes over taxes between King George III and the American colonists, and a few others expressed beliefs that queens must be beautiful or that kings and queens existed only in the past.

Ideas about how people become kings or queens focused on inheriting the throne, qualifying by being very rich or owning a castle, or capturing the throne through force or guile. Those who talked about kings or queens exercising power or leadership did not describe them as benevolent in the ways that they typically described Presidents. The minority of students who drew direct comparisons typically depicted kings and queens as basking in the trappings of inherited luxury, while depicting Presidents as working long hours for the good of the country during their limited time in office.

Questions 6-9 addressed issues relating to candidates, political parties, and elections. When asked what they knew about countries ruled by people who were not elected, most students could not respond and those who did said nothing about monarchies, dictatorships, totalitarian forms of government, or other alternatives to representative democracy (about which they had only limited knowledge as well). This fits well with earlier findings indicating that primary-grade children do not yet have clear concepts of nation-states and the political structures and offices involved in governing them (Berti & Benesso, 1998)—instead, their images of political leadership focus on benevolent parental figures assisted by "helpers."

When asked about who is allowed to vote in American elections, almost half of the students mentioned an age qualification and smaller numbers mentioned other qualifications (must be a citizenship, must be registered) or exceptions (criminals not allowed to vote). Most of these responses were accurate as far as they went, although some students thought that only the President or other governmental leaders could vote and others thought that people in government were not allowed to vote.

Only about ten percent of the students were able to say anything substantive about the Democratic and Republican parties beyond versions of "they think differently." Most of these few substantive responses were based either on the image of Republicans as rich people or on knowledge that the Democrats (Clinton Administration) were currently in power. Two responses depicted Democrats as criminals—bad people prone to "steal and kill" or "shoot somebody and lie about it." Although infrequent, such responses are worrisome because they suggest that the polarized political dialogue of recent decades has filtered down to children in highly emotional and counterproductive forms. Evidence of this phenomenon could be seen in responses to some of the other questions as well.

When asked what they would look for in a presidential candidate, most students emphasized generic virtues (nice, kind, helpful, not greedy, not bossy, etc.) or the specific traits of honesty and competence. About twenty percent (mostly older and more sophisticated students) mentioned the candidate's vision or policies. Most of the students still assumed an orderly society run by benevolent leaders, but some of the older ones were beginning to understand issues associated with political power and competing agendas, and a few had begun to crystallize these around attitudes toward political parties.

Question 10 asked where the President lives and works and what he and the federal government do. About half of the younger students were unable to respond or guessed incorrectly, but most of the older ones were able to say that Bill Clinton lived in the White House and that the White House was located in Washington, D.C.

Responses to questions about what the President/government does mostly referred to the President individually rather than the government generally. Younger students' responses tended to focus on general virtuous behavior (doing good, helping people, etc.), without specific examples. When younger students did give examples, they often were unrealistic, depicting the President as personally stopping riots, cleaning the environment, or engaging in the activities of police officers, doctors, or judges (send people to jail, set broken bones, catch people who don't pay their taxes, etc.). Older students were more likely to describe the President's activities as office work or solving problems, and their examples tended to be more realistic (making executive decisions, appointing judges, etc.). Some imagined the President as mostly signing papers and doing office work, others as mostly carrying out daunting responsibilities requiring decisions about important problems, and still others as mostly traveling around the country providing speeches, photo opportunities, and autographs. These themes reappeared later when the students were asked about positive and negative aspects of being the President.

The next questions asked about the location and activities of the Governor and people who work for the state government of Michigan. The students' responses paralleled in many ways their answers to previous questions about the President and the federal government. They also replicated earlier findings that children tend to have more information about the identities and activities of the President relative to the Governor or mayor, but at the same time to have more information about governmental activities at the local or state level than the federal level. Only 14 students said that the Governor worked at the capitol and only 20 said that the capitol was located in Lansing.

More than a third of the students were unable to respond when asked what the Governor/government does. The rest gave answers similar to those given previously about the President, emphasizing generic virtuous behavior or speaking of solving problems without giving specific examples. Only an eighth of the students gave realistic examples (recommending or enforcing laws, making policy speeches, seeing that we have street lights, etc.), and almost as many gave unrealistic examples (stopping riots, cleaning up things, acting as a judge, policeman, or physician, etc.).

Many of the examples conflated the activities of local government with those of state government, and some depicted the Governor as a helper to the President. The students had more realistic ideas about state government than the federal government, but even so, most of their images of government activities were limited to vague notions of office work or problem solving, and there were frequent confusions concerning the respective functions of the federal, state, and local levels.

Fewer than half of the students were able to describe the activities of employees who work in the capitol building. Their responses included generic good deeds (helping people, etc.), generic office work (work on computers, write letters, stamp papers, etc.), specific examples of governmental activities (respond to questions that people send in, develop laws, act as aides to the Governor, etc.), and other activities such as cleaning the building so that it will look good for visitors. Most examples of governmental activities were generated by older students, and most of these did in fact refer to governmental (as opposed to private sector) functions.

Questions 13-15 addressed students' knowledge about distinctions between rules and laws, the making and changing of laws, and current lawmaking in the news. Only about half of the students were able to draw clear distinctions between rules and laws, typically depicting rules as made by parents or teachers and applying only in the home or school but laws as made by governments and applying everywhere, or rules as breakable with only minor consequences but laws as requiring obedience under penalty of fines or imprisonment.

Most of the students didn't know much about laws or the lawmaking process. Lacking specific knowledge about the legislative branches of governments, the majority assumed that laws are proclaimed by the President, the Governor, judges, or the police. More than two-thirds understood that laws could be changed, but again, most of these thought that the change would involve decisions made in the executive or judicial branches of government. Only eleven students described a revote by the people who made the laws in the first place. Similarly, when asked what their parents might be able to do if they were unhappy with a law, most students emphasized contacting governmental officials in the executive or judicial branches rather than the legislative branch. About a fourth of the students thought that their parents could not do anything to change a law. These students were split almost evenly between those who said that the parents would just have to accept the law and those who said that the parents should defy it. Most of the latter students appeared to assume that there was something wrong with the law that would justify an unusual decision, not to assume that people routinely choose to disobey laws that displease them.

Only about a fourth of the students were able to identify one or more laws that have been changed or might be changed or introduced. Most of these responses were accurate, focusing on bicycle safety, seatbelts, or regulations concerning smoking, alcohol, drugs, or weapons. It was not surprising that students this young were aware of laws regulating the behavior of individuals but not laws regulating commerce, corporations, or governmental processes.

Responses to questions about possibilities for introducing or changing laws indicated that very few students had realistic knowledge about political organization or lobbying. However, a few third graders spoke of organizing to create political pressure, a few spoke about their parents seeking redress in the courts, and one mentioned the possibility of voting against the incumbent President in the next election.

The students' attitudes toward rules and laws were generally positive, reflecting beliefs that they make for a safe, well-ordered society and provide guidance about desired behavior. Students coded for safety rationales tended to focus on traffic regulations, whereas those coded for rationales emphasizing the need for a well-ordered society tended to focus on crime. Several students drew apocalyptic visions of the chaos that would result if rules and laws were not in place (people would be shooting one another, there would be fires everywhere, etc.).

Question 16 asked what judges do. More than a third of the students were unable to respond or produced only vague generalities (help the government, talk to people, etc.). The majority, however, were able to draw on what they had seen on television to identify one or more specific things that judges do in courtrooms (decide criminal cases by determining if people are guilty or innocent, preside over the courtroom, bang their gavels to keep order, make rulings in civil lawsuits or divorces, lecture defendants about their misconduct, or ask questions of witnesses or defendants to elicit facts or motives. These responses were generally accurate for courtrooms in which the judge (rather than a jury) is in fact the arbiter who decides which side wins the case and what subsequent actions will be taken. The few students who mentioned juries depicted them as advisors to the judge. Most examples depicted criminal cases, but ten students depicted civil cases (including several who had been to court for divorce hearings).

Questions 17 and 18 asked about what government workers do for people, including the student's own family. Responses to these questions were surprisingly poor, given how much the students had said about government in response to previous questions. A majority were either unable to respond or could speak only in vague generalities when talking about government workers (they work, help the President, etc.) or functions of government (keep us safe, pass good laws, etc.). Sixteen identified safety net services (assistance to poor people or victims of fires, storms, etc.), ten identified basic community services (police, fire, paramedics, etc.), and eight described the government as an all-purpose provider (of homes, factories, grocery stores, etc., to supply whatever people need). Individual responses included certifying the safety of consumer products, providing insurance, providing schools, maintaining roads, and renewing run-down neighborhoods.

It was surprising that so few students mentioned local community services, roads, schools, parks, or other government institutions or services. We know that children are aware of these aspects of their lives and surroundings; apparently they do not yet connect them with images of government. What little students learn about government in the early grades focuses on leaders and the symbols associated with them (e.g., the White House), with little attention given to the specifics of government functions, especially government services. We believe that instruction ought to build on the basic idea that governments provide needed infrastructure and services that are too big in scope, expense, etc. for individual families to provide for themselves. This would delineate a richer picture of public sector activities than most children possess, and likely be of more interest and use to them than some of the more abstract notions often emphasized in lessons on government (e.g., how a bill becomes a law).

Questions 19-21 addressed students' knowledge about taxes as the main source of government income and about community services as local government functions paid for with tax money. Responses to these questions replicated developmental trends reported in previous research. Some students were unable to generate any response at all. Others expressed misconceptions, such as that governmental leaders pay government employees with money from their own personal funds or money obtained from banks (simply by asking for it). Still others knew that the government prints bills and mints coins, so they reasoned that it could manufacture whatever money it needs to pay its employees. Finally, the most mature students understood that governments collect taxes to fund their activities, including construction of police and fire stations and payment of police and firefighters.

Most of the students who used the word "taxes" understood taxes as bills to be paid. However, some of them confused taxes with utility bills, house or car payments, or other bills rather than defining taxes as money paid to the government. Students who did understand that taxes are paid to the government usually also understood that most of the money used to fund government activities comes from these taxes.

When asked who owns the police and fire stations, thirty-one students were unable to respond and thirty-six correctly said the government/Governor/township, etc. However, nineteen said the boss (chief, deputy, etc.), and fourteen said the people who work in the building. Similarly, when asked who pays the police and firefighters, twenty-eight students were unable to respond and twenty-three correctly said tax money or the people who pay taxes, but the rest named the President or another executive (presumably using personal funds) or the people who use the services (including people who pay fines for speeding or calling in false alarms).

The next two questions addressed students' knowledge about public and private schools, probing in particular their understanding of a difference in the basis for their funding. Most students could not identify alternatives to public schools (Catholic schools, reading schools, tutorial schools, etc.) and most of those who could were not clear about how these alternative schools are funded. Only a small minority understood that their own public school was owned by the local government and that its teachers were paid using tax money. Many more could not respond to these questions or thought that the school was owned by the principal or the people who worked in the building and that the teachers were paid by the principal, the President or Governor, or their own parents.

Students who were able to name alternatives to public schools typically described these schools as more exclusive, having higher academic standards, or offering more curricular alternatives or extracurricular attractions than their school did. However, only six students distinguished between public and private schools by stating that the public schools are paid for with tax money. The students' knowledge about public ownership and funding of schools was noticeably less developed than their parallel knowledge about police and fire stations.

The final question asked students whether they would like to be President when they grew up. Reflecting the findings of surveys conducted in recent years, a majority (56) of the students said that they would not want to be President when they grew up, eighteen were undecided, and only twenty-two said yes. Follow-up questions about positive aspects of being the President yielded responses that emphasized perquisites that come with the office (live in the White House, have a bowling alley or swimming pool in the house, get free cars, etc.) and the power to issue orders and make things happen (mostly orders for personal services, such as sending an aide to get coffee). Only twelve students mentioned opportunities to do good for the country by making things more fair, helping the needy, etc. Follow-up questions about negative aspects of being the President yielded responses that emphasized having to work long and hard with little time for recreation or your family (31), daunting responsibilities (11), and being required to do a lot of work that is not enjoyable because it involves going to meetings and writing a lot (10). Individual responses included the ideas that you need a lot of lawyers, you might be sent to jail for not following the rules, someone might try to kill you, you have to have guards that follow you around and watch you all the time, and you have to get into "all that political stuff."

We find it disturbing that less than a fourth of the students said that they wanted to be President when they grew up, and that many of these were more focused on perquisites than on opportunities to use the power of the office for the good of the country. Furthermore, even though most of these students attributed near-omnipotent power to the Presidency, more of them associated the office with long hours, daunting responsibilities, and boring work than with exciting opportunities to serve the nation and make things happen. We think that the nation in general, the schools in particular, and the social studies curriculum most especially, need to do a better job of emphasizing the common good, helping students to appreciate the many functions and services that governments perform, and socializing students to aspire to public service careers.

Grade Level Differences

Significant relationships with grade level were observed for 129 of the 176 coding categories shown in Table 1. Of the 129 significant relationships, 122 were for linear trends and the other 7 were for nonlinear relationships. The 122 linear trends can be summarized simply by stating that the younger students were more likely to be unable to respond or to be coded in categories reflecting low-level responses, whereas the older students were more likely to be coded in categories reflecting sophisticated responses. In some cases, responses expressed by older students were limited or incorrect, but still reflective of more advanced knowledge than the response categories coded more frequently for younger students (in particular, inability to respond at all). Overall, then, the data show consistent tendencies for increases in knowledge across the K-3 grade level range.

Achievement Level and Gender Differences

Significant relationships with achievement level were observed for 48 of the 176 categories. Of these, 42 were linear trends and 6 were nonlinear relationships. Most of the 42 linear trends can be summarized simply by stating that lower achievers were more likely to be unable to respond or to give low-level responses to the questions, whereas higher achievers were more likely to give sophisticated responses, although these achievement-level differences were much less pronounced and less frequently statistically significant than the grade-level differences.

Once again, significant relationships appeared least frequently with gender. In this case, only 19 of the 176 categories in Table 1 showed significant gender differences. More boys were able to define government as an organization rather than a person, to name Bill Clinton as President, to say that the President lives and works in the White House in Washington, D.C., and the Governor in Lansing, and to describe the activities of judges. However, more girls were able to name desired qualities in presidential candidates, describe the activities of state workers, and define taxes as money paid to the government.

Limitations of the Study

Our interviewers generally established good rapport with students and our questions were tailored for the age levels involved, so we believe that our findings comprise a generally valid representation of the nature and development of K-3 students' knowledge and thinking about government. Furthermore, to the extent that our findings overlap with findings reported in previous studies, they mostly replicate those findings.

The sample was large enough to allow population differences by grade level, achievement level, or gender to be detected via statistically significant Chi-squares in our analyses. However, it was limited in at least three respects. First, it was limited to the lower middle portion of the socioeconomic status (SES) range. No subsamples representing the upper or lower SES levels were included.

Second, even though the sample was open to students of any race or ethnicity (as long as all or at least most of their lives had been lived in the U.S.), the population of the community involved was such that the students we interviewed were overwhelmingly European American in their ethnic composition. Few students from African-American, Asian-American, Latino, or Native American families were included. We believe that children's ideas about government are more likely to be influenced by their common experiences growing up within the contemporary U.S. society and culture than by differences in their family backgrounds, so we do not believe that this sample limitation is as serious as it might have been if we were asking questions about race or ethnicity. This is an untested assumption, however, and it remains to be seen whether our findings will generalize to racial and ethnic minorities.

The third limitation in the sample was geographic. The students all lived in Michigan. It is possible that somewhat different patterns of response to at least some of our questions might have been elicited from students living elsewhere.

Another limitation of the study is its lack of systematic data on the origins of students' ideas. Interviewers were instructed to ask students about where they got their information when they gave unusually sophisticated or detailed responses, but we did not routinely ask about the sources of the students' information.

Implications for Primary-Grade Social Studies

We believe that primary-grade students stand to profit from instruction about government as part of their social studies curriculum, although in addition to (not instead of) efforts to develop their prosocial values and dispositions and a variety of skills ranging from map reading to critical thinking and decision making. The questions asked in our interview reflect our notions about some of the key ideas that might be emphasized in teaching about government. They tap networks of knowledge that we believe to be basic for developing initial understandings of the topic.

Like others who have focused on the primary grades, we believe that the curriculum in these grades should feature pre- or pandisciplinary treatments of topics designed to develop "knowledge of limited validity" (Levstik, 1986) or "protodisciplinary knowledge" (Gardner & Boix-Mansilla, 1994) about the topic, rather than attempts to teach children disciplinary knowledge organized as such. We favor an appropriate balance between the three traditional sources of curricula (knowledge of enduring value, including but not limited to disciplinary knowledge; the students' needs, interests, and current zones of proximal development; and the needs of society in terms of the knowledge, skills, values, and dispositions that our society would like to see developed in future generations of its citizens). Within this context, we argue that a pandisciplinary introduction to the social world (past and present, taught with emphasis on developing understanding, appreciation, and life application of big ideas) makes more sense for primary-grade students than what we view as premature attempts to socialize these students into the academic disciplines.

In this regard, we envision lessons on government that provide much more substantive information than the lessons typically found in primary-grade social studies texts (usually limited to the identification of salient leaders, locations, and symbols associated with government), but are less abstract and more functional for primary-grade students than the kinds of lessons found in later civics and political science textbooks (e.g., how a bill becomes a law, comparisons of Presidents with prime ministers). We think that attention should focus on the specifics of government functions, depicting governments as needed not only to establish and maintain an orderly society but also to address a broad range of human needs and wants. In this regard, a basic idea is that governments provide needed infrastructure and services that are too big in scope, expense, etc. for individual families to provide for themselves. In the process, teachers might socialize students to adopt a more positive or at least balanced view of what is involved in "political stuff," and perhaps aspire to careers in public service.

In conclusion, we believe that primary-grade students stand to benefit considerably from treatments of cultural universals that are more powerful than those typically offered by textbook series. We define powerful treatments as treatments that enable students to develop understanding of how the cultural universal addressed in the unit works in our society, how and why it got to be that way over time, how it varies across locations and cultures, and what all of this might mean for personal, social, and civic decision making.

Such units would still focus on elementary and familiar content in that they would address fundamental aspects of the human condition and connect with experience-based tacit knowledge that students already possess. However, they would not merely reaffirm what students already know. Instead, they would raise students' consciousness of and help them to construct articulated knowledge about basic aspects of the cultural universal about which they have only vague and tacit knowledge (this refers to aspects that are concrete and comprehensible to them given their limited cognitive structures and prior knowledge; aspects that were too abstract or macroanalytic would not be included). Such units also would introduce students to a great deal of new information, develop connections to help them transform scattered understandings into a network of integrated knowledge, and stimulate them to apply the knowledge to their lives outside of school and to think critically and engage in value-based decision making about the topic. For more information about such units, see Brophy and Alleman (1996), and for detailed unit plans, see Alleman and Brophy (2001, 2002, in press). The Alleman and Brophy (in press) volume includes plans for an instructional unit on government.

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Appendix 1

Interview Questions

Government Interview

1. TODAY WE'RE GOING TO TALK ABOUT GOVERNMENT. WHAT IS GOVERNMENT? (If necessary, define government as the people who are in charge of running our country.) . . . WHAT DOES GOVERNMENT DO?

2. WHO IS THE HEAD OF OUR GOVERNMENT? (If student says President, ask for name.)

3. HOW DID HE GET TO BE PRESIDENT?

4. CAN ANYONE BE PRESIDENT OR ONLY CERTAIN PEOPLE? (Follow up by probing for explanations.)

5. SOME COUNTRIES HAVE KINGS OR QUEENS INSTEAD OF PRESIDENTS. HOW ARE PRESIDENTS DIFFERENT FROM KINGS OR QUEENS? (If necessary, ask HOW DOES A PERSON BECOME PRESIDENT? . . . HOW DOES A PERSON BECOME KING OR QUEEN?)

6. SOME COUNTRIES ARE RUN BY PEOPLE WHO WERE NOT ELECTED. HOW DID THESE PEOPLE GET TO BE IN CHARGE OF THEIR GOVERNMENTS? . . . DO YOU KNOW ANY COUNTRIES THAT ARE RUN BY PEOPLE LIKE THAT?

7. IN OUR COUNTRY, THE PRESIDENT AND OTHER GOVERNMENT LEADERS ARE ELECTED BY VOTERS. WHO IS ALLOWED TO VOTE? (If necessary, ask: CAN ANYBODY VOTE, OR JUST SOME PEOPLE?)

8. IN ELECTIONS, THE VOTERS ARE USUALLY CHOOSING BETWEEN DEMOCRATS AND REPUBLICANS. HOW ARE DEMOCRATS AND REPUBLICANS DIFFERENT? . . . LIKE IN THE LAST ELECTION, WHY DID SOME PEOPLE VOTE FOR BILL CLINTON AND OTHER PEOPLE VOTE FOR BOB DOLE?

9. IN AN ELECTION, WHY DO PEOPLE VOTE FOR ONE CANDIDATE (If necessary, one person) RATHER THAN ANOTHER? . . . WHAT WOULD YOU LOOK FOR IN A CANDIDATE FOR PRESIDENT? IF YOU COULD VOTE FOR A PRESIDENT, WHAT QUALITIES WOULD YOU BE WANTING IN A CANDIDATE?

10. OUR PRESIDENT RIGHT NOW IS BILL CLINTON. WHERE DOES HE LIVE AND WORK? . . WHAT DOES HE DO? . . . WHAT ARE SOME THINGS THAT THE UNITED STATES GOVERNMENT DOES?

11. WE LIVE IN THE STATE OF MICHIGAN. THE GOVERNOR OF MICHIGAN IS JOHN ENGLER. WHERE DOES HE LIVE AND WORK? . . . WHAT DOES HE DO? . . . WHAT ARE SOME THINGS THAT THE GOVERNMENT OF MICHIGAN DOES?

12. WHAT DO PEOPLE WHO WORK IN THE CAPITOL BUILDING DO?

13. WHERE DO LAWS COME FROM? (If necessary, ask: WHO MAKES LAWS?) . . . DO YOU KNOW ABOUT ANY LAWS THAT OUR GOVERNMENT IS WORKING ON RIGHT NOW?

14. CAN LAWS BE CHANGED? . . . HOW DO THEY GET CHANGED? . . . DO YOU KNOW OF ANY LAWS THAT HAVE BEEN CHANGED? . . . WHAT COULD YOUR PARENTS DO IF THEY DIDN'T LIKE A LAW?

15. PEOPLE ARE SUPPOSED TO FOLLOW RULES AND LAWS. WHY DO WE NEED RULES AND LAWS? . . . WHAT IS THE DIFFERENCE BETWEEN A RULE AND A LAW? . . . WHAT HAPPENS TO SOMEONE WHO BREAKS A LAW?

16. JUDGES ARE PART OF THE GOVERNMENT TOO. WHAT DO JUDGES DO?

17. A LOT OF PEOPLE WORK FOR THE GOVERNMENT. WHAT ARE SOME OF THE JOBS THAT THEY DO?

18. BESIDES MAKING LAWS, THE GOVERNMENT ALSO HELPS PEOPLE. WHAT ARE SOME OF THE THINGS THAT THE GOVERNMENT DOES FOR PEOPLE? . . . HOW DOES THE GOVERNMENT HELP YOUR FAMILY?

19. IT COSTS MONEY TO PAY THE PEOPLE WHO WORK FOR THE GOVERNMENT. WHERE DOES THIS MONEY COME FROM?

20. WHAT ARE TAXES? . . . WHO PAYS THEM? . . . WHO GETS THAT TAX MONEY? . . . WHAT DO THEY DO WITH IT?

21. HERE IN OUR CITY, WE GET SERVICES FROM THE TOWNSHIP POLICE AND FIREFIGHTERS. . . . WHO PAYS THE POLICE AND FIREFIGHTERS? (If appropriate, probe to clarify where the money comes from.)

22. THE KIDS IN THIS CITY GO TO SCHOOLS LIKE THIS ONE. WHO OWNS THIS SCHOOL? . . . WHO PAYS THE TEACHERS? (If appropriate, probe to establish where the money comes from.)

23. THIS SCHOOL IS A PUBLIC SCHOOL. WHAT OTHER KINDS OF SCHOOLS ARE THERE, BESIDES PUBLIC SCHOOLS? (Probe for whatever differences the child can mention, but especially information about who pays for the schools.)

24. WOULD YOU LIKE TO BE PRESIDENT WHEN YOU GROW UP? (Why or why not?)

Table 1. Distributions and Correlation Coefficients Showing Relationships of Coding Categories to Grade Level, Achievement Level, and Gender[1]

	Total Sample	Grade Frequencies				Grade Phi	Achievement Level Frequencies			Ach. Phi	Gender Frequencies		Gender Phi
		K	1	2	3		Low	Avg.	High		M	F	
Number of Students	96	24	24	24	24		32	32	32		48	48	
1A. Today we are going to talk about government. What is government?													
0. Doesn't know/no relevant response	62	23	18	11	10	-46	21	18	23		31	31	
1. Person: Defines the President, the Governor, or some other individual as the government	17	1	3	7	6	26	9	7	1	-26	6	11	
2. People/organization: the government is the people or an organizat-tion that makes rules or laws, runs the state or country	17	0	3	6	8	33	2	7	8	21	11	6	
1B. What does government do?													
0. Doesn't know/no relevant response	29	18	10	1	0	-66	8	11	10		14	15	

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Table 1 (cont'd.)

2. "Helps people" or gives people money, food, clothes, etc.	16	3	6	4	3		7	3	6		8	8	
3. Makes/enforces laws: make laws, keeps us safe, etc.	36	3	4	12	17	50	9	12	15		18	18	
4. Run the country: run the state/ country, solve problems	20	0	4	8	8	34	7	7	6		13	7	
6. Other: Makes land, engages in wars or foreign affairs, etc.	10	0	4	3	3		2	2	6	19	6	4	
7. Person confusion: speaks of the government as an individual person or organization	14	0	2	7	5	32	8	5	1	-25	4	10	18
2. Who is the head of our government?													
0. Doesn't know/no relevant response	23	10	7	3	3	-29	11	3	9	NL	6	17	27
1. The President	49	6	7	19	17	48	10	21	18	29	27	22	
2. Bill Clinton	38	3	3	15	17	56	9	14	15		23	15	-17

Table 1 (cont'd.)

3. Past Presidents: George Washington, Abe Lincoln, etc.	17	7	6	3	1	-26	8	6	3	-17	8	9
4. Other: The Governor, John Engler, the people, etc.	10	2	5	2	1		3	5	2		4	6
3. How did he get to be the President?												
0. Doesn't know/no relevant response	30	17	10	1	2	-58	10	11	9		16	14
1. He was elected, won an election	44	1	3	19	21	76	11	15	18	18	23	21
2. Virtuous: hard-working, a good person, speaks the truth, etc.	14	3	7	2	2		4	6	4		8	6
3. Competent: did well at school, good speaker, problem solver	8	0	4	1	3		3	4	1		2	6
4. Other: made a lot of money, he signed up for the job, etc.	12	3	5	2	2		7	3	2	-20	5	7

Table 1 (cont'd.)

4. Who can be President?

1. Anyone/everyone (unqualified) or no relevant response	15	4	2	7	2		8	5	2	-21	8	7
2. Anyone who meets the age qualification	43	4	14	7	18	46	17	12	14		25	18
4. Must have special qualifications: virtuous, well/specially educated, good speaker or decision maker, etc.	22	3	9	5	5		3	9	10	23	12	10
5. Other qualification: be a lawyer, really want the job, etc.	12	0	2	4	6	28	2	5	5		4	8
6. Disqualifying exceptions: the elderly, people who already have jobs, criminals, etc.	12	2	2	1	7	30	4	5	3		6	6
8. Only certain people qualify (couldn't say more)	18	12	3	3	0	-48	4	8	6		7	11

5A. Some countries have kings or queens instead of presidents. How are presidents different from kings or queens?

0. Doesn't know/no relevant response	16	9	5	2	0	-38	6	3	7		8	8

Table 1 (cont'd.)

1. Kings/queens live in castles, palaces	21	3	6	7	5		4	7	10	19	11	10
2. Kings/queens wear crowns, jewels, wigs, royal robes, etc.	25	2	8	11	4	NL	8	10	7		12	13
3. Kings/queens live life of luxury, have servants, etc.	11	2	1	4	4		3	5	3		6	5
4. Kings/queens rule all by themselves or are despots (whereas presidents do not have dictatorial powers)	20	1	4	3	12	43	6	7	7		10	10
5. Kings/queens have mostly ceremonial jobs	7	2	1	1	3		3	2	2		5	2
5B. How do kings or queens get the job?												
7. Marriage/inheritance	31	0	7	11	13	44	7	11	13		14	17
8. Rich: They are rich, own a castle, etc.	15	3	4	3	5		7	4	4		7	8
9. Other: They are greedy, they are not elected, etc.	24	9	6	5	4	-18	6	11	7		11	13

Table 1 (cont'd.)

7. In our country, the President and other government leaders are elected by voters. Who is allowed to vote?

1. Anyone/everyone (unqualified) or no relevant response	22	11	5	4	2	-33	9	8	5		11	11	
2. Everyone who is old enough	46	2	9	16	19	55	12	15	19	18	23	23	
3. Not everyone old enough to vote is allowed to vote (cannot explain it further)	10	3	4	1	2		3	3	4		6	4	
4. Citizens/residents	6	0	1	2	3	19	0	3	3		3	3	
5. Other qualifications/exceptions (only those who register, the President or criminals can't vote, etc.)	20	8	6	2	4	-23	10	7	3	-22	9	11	

9. What would you look for in a candidate for President?

0. Doesn't know/no relevant response/unexplained preference	21	9	7	2	3	-29	4	8	9		12	9	
1. Names a person: Lincoln, Louis Armstrong, Clinton, etc.	20	9	3	6	2	-28	8	7	5		14	6	-21

Table 1 (cont'd.)

2. Generic virtues: nice, kind, helpful, not greedy, not bossy, etc. (all generic virtues except those coded in subsequent categories)	50	9	12	15	14	19	16	21	13		22	28
3. Honest, trustworthy	13	0	2	2	9	42	4	5	4		5	8
4. Competence: smart; educated; knows the job; experienced; good leader, problem solver, etc.	21	1	2	6	12	44	6	2	13	34	10	11
5. Vision/policies: has good ideas about needed laws or ways to improve the country, etc.	21	0	1	14	6	56	5	6	10		11	10
6. Treats people fairly or with respect	6	0	1	0	5	35	1	3	2		2	4
7. Other: happy, will do what I ask, a female, helps the poor but without raising taxes, pleasing personality, etc.	23	1	6	10	6	31	12	6	5	-23	13	10
10A. Our President right now is Bill Clinton. Where does he live and work?												
0. Doesn't know/no relevant response	24	12	11	0	1	-53	9	8	7		9	15

Table 1 (cont'd.)

1. White House (specifically)	52	4	8	21	19	60	21	14	17		31	21	-21
2. Less specific or incorrect name for the building (big house, President's house, capitol building)	9	4	1	1	3		1	7	1	NL	3	6	
3. Washington, D.C. (specifically)	48	1	5	19	23	77	13	17	18		27	21	
4. Some other location	10	4	4	2	0	-23	4	2	4		5	5	
10B. What does the President/government do?													
0. Doesn't know/no relevant response	21	12	8	0	1	-50	8	6	7		10	11	
1. Generic virtuous behavior: works, does good, helps people, etc.	15	4	6	5	0	-26	6	7	2		8	7	
2. Generic office work: reads, writes, has meetings	19	6	0	6	7	NL	8	6	5		9	10	
3. Solves problems: generic (unexplained further, no examples)	28	0	4	13	11	48	5	13	10	NL	16	12	

Table 1 (cont'd.)

4. Solves problems: unrealistic (stopping riots, cleaning up things, acting as a judge or policeman, setting broken bones, etc.)	12	4	6	1	1	-27	5	4	3		8	4
5. Solves problems: realistic (making decisions about foreign affairs or warfare, recommending or enforcing laws, making policy speeches, vetoing laws, etc.)	17	2	2	5	8	27	5	5	7		8	9
6. Other: tries not to get assassinated, keeps the country united, etc.	14	1	5	6	2		4	4	6		7	7
7. Student is coded in Categories 3 or 5	45	2	6	18	19	62	10	18	17	22	24	21
8. Student generates "virtuous behavior" response (all responses coded in Category 1 plus some coded in Categories 4 or 6)	19	6	8	5	0	-31	8	7	4		11	8

Table 1 (cont'd.)

11A. We live in the state of Michigan. The Governor of Michigan is John Engler. Where does he live and work?

0. Doesn't know/no relevant response	57	18	19	13	7	-40	21	17	19		31	26	
2. Capitol building	14	0	0	6	8	42	3	4	7		8	6	
3. Any other building	8	2	1	2	3		4	3	1		2	6	
4. Located in Lansing	20	1	2	6	11	40	5	6	9		12	8	
5. Located somewhere else	11	4	2	2	3		3	7	1	NL	2	9	23

11B. What does the Governor/government do?

0. Doesn't know/no relevant response	36	14	17	3	2	-57	14	12	10		18	18	
1. Generic virtuous behavior: Works, does good, helps people, etc.	33	8	6	11	8		9	14	10		17	16	
3. Solves problems: generic (unexplained further, no examples)	28	1	2	14	11	51	8	8	12		13	15	

Table 1 (cont'd.)

4. Solves problems: unrealistic (stopping riots, cleaning up things, acting as a judge or policeman, setting broken bones, etc.)	9	3	2	1	3		4	3	2		6	3
5. Solves problems: realistic (recommending or enforcing laws, making policy speeches, seeing that we have street lights, vetoing laws, etc.)	12	1	1	5	5	25	1	2	9	34	6	6
6. Student is coded in Categories 3 or 5	33	2	3	14	14	51	9	8	16	23	16	17
12. What do people who work in the Capitol building do?												
0. Doesn't know/no relevant response	50	20	16	8	6	-48	18	17	15		26	24
1. Generic good deeds: help people, do good, work for the governor, solve problems, etc.	17	2	5	4	6		7	7	3		7	10
2. Generic office work: work in offices, work on computers, write letters, stamp papers, etc.	10	2	3	3	2		1	3	6	21	5	5

Table 1 (cont'd.)

3. Specific example: respond to questions that people send in, develop rules and laws, act as staff people to Governor	20	0	2	9	9	42	4	7	9		12	8
4. Other: clean the building so it will look good for tour groups, etc.	9	1	2	4	2		3	3	3		5	4
5. Student is coded in Categories 2 or 3	27	2	4	11	10	36	5	9	13	23	14	13

13. Where do laws come from? Do you know about any laws that our government is working on right now?

0. Doesn't know/no relevant response	13	7	4	2	0	-31	5	3	5		8	5
2. The police	10	4	1	1	4		6	3	1	-21	7	3
3. The President, the Governor, judges	59	9	16	17	17	29	19	22	18		26	33
4. The government	27	1	7	8	11	34	6	9	12	17	16	11
6. Other: bad guys, God, the people, etc.	9	5	1	1	2		2	4	3		3	6
7. Mentions Congress/ legislation process specifically	6	0	0	3	3	26	0	4	2		2	4

Table 1 (cont'd.)

14A. Can laws be changed?												
0. Doesn't know/no relevant response	6	4	1	1	0	-26	2	1	3	3	3	
1. No	22	13	6	2	1	-47	10	6	6	11	11	
2. Maybe/yes	68	7	17	21	23	57	20	25	23	34	34	
14B. How are laws changed?												
4. The President, Governor, or judges change them	40	5	9	12	14	29	14	15	11	17	23	
5. People in the government who made the laws have a revote	11	0	3	3	5	23	2	3	6	7	4	
7. The new law or change in law is publicized	6	0	2	2	2		4	0	2	4	2	
8. Other: the President speaks to the government about changing the law, citizens petition, God changes them, etc.	6	2	1	1	2		1	3	2	0	6	26
9. Student names one or more specific laws that have been or might be changed/introduced	27	1	4	8	14	45	8	8	11	16	11	

Table 1 (cont'd.)

14C. What can parents do if they don't like a law?

0. Doesn't know/no relevant response/ambiguous response	33	13	13	4	3	-42	9	10	14		18	15	
1. Accept it: just put up with it, obey it	14	3	4	5	2		5	4	5		7	7	
2. Defy it: just do what they think is right, disobey the law, etc.	12	6	2	3	1	-24	5	7	0	-28	7	5	
4. Contact President, Governor, police, etc.	32	2	6	10	14	40	13	8	11		14	18	
5. Contact your representative	9	0	0	4	5	33	1	4	4		5	4	

Question 15A. People are supposed to follow rules and laws. Why do we need rules and laws?

0. Doesn't know/no relevant response	11	5	5	1	0	-30	8	2	1	-30	5	6	
1. Provide guidance: so people will know how to act, etc.	9	2	3	1	3		4	3	2		2	7	18
3. Safety: keep us safe, prevent harm, etc.	61	14	12	18	17		14	22	25	30	31	30	

Table 1 (cont'd.)

4. Create a well-ordered society/avoid chaos	29	3	6	9	11	28	7	11	11	17	12
15B. What is the difference between a rule and a law?											
0. Doesn't know/no relevant response/says that they are the same	7	4	3	0	0	-29	3	1	3	2	5
1. Gives examples of rules or laws but does not draw a clear distinction between them	6	1	1	4	0	NL	4	1	1	3	3
2. Says something accurate about rules or laws but does not directly compare them	39	18	14	5	2	-55	16	12	11	20	19
3. Contrast: you can break rules but you must obey laws	29	2	1	8	18	61	9	8	12	15	14
5. Contrast: rules are made by parents, teachers, etc. whereas laws are made by governments	9	1	2	1	5	23	3	3	3	4	5

Table 1 (cont'd.)

6. Contrast: rules apply only to the home, the school, etc. but laws apply everywhere	24	0	3	12	9	46	4	12	8	NL	13	11	
7. Draws a contrast (vs. fails to do so)	50	2	7	19	22	69	13	19	18		26	24	
16. Judges are part of the government. What do judges do?													
0. Doesn't know/no relevant response/ vague generality (help the government, talk to people)	36	12	16	5	3	-45	13	12	11		16	20	
1. Decide criminal cases: determine if people are innocent or guilty	40	7	6	13	14	30	11	16	13		25	15	-21
2. Decide civil cases: make rulings in lawsuits, divorces, etc.	10	1	1	5	3		4	3	3		4	6	
3. "Lecture" defendants about their conduct	8	4	1	1	2		4	2	2		4	4	
4. Preside over the courtroom: run the court, keep order, bang gavel, etc.	15	2	4	3	6		3	6	6		8	7	

Table 1 (cont'd.)

5. Question to elicit facts, motives: talks to witnesses to clarify what they saw, talks to the accused to clarify motives, etc.	6	1	0	3	2		4	2	0	-21	4	2	
6. Other: speaks very politely to people, reviews jury decisions, etc.	9	1	1	3	4	19	2	3	4		4	5	
17. A lot of people work for the government. What are some of the jobs that they do?													
0. Doesn't know/no relevant response/ vague generalities (works, helps the government, President, etc.)	58	20	18	12	8	-41	20	18	20		34	24	-21
1. Names specific government jobs: President, Governor, legislator, judge, makes laws, etc.	22	1	2	8	11	41	6	8	8		9	13	
2. Staff/office work: works on computers,- goes to meetings, secretary, assistant to executive or legislator, etc.	14	2	2	4	6	20	4	6	4		3	11	24

Table 1 (cont'd.)

5. Other: cleans windows, invents things for the government, works for military or police, etc.	12	1	2	5	4	20	4	3	5	5	7
18. Besides making laws, the government also helps people. What are some of the things that the government does for people?											
0. Doesn't know/no relevant response/ vague generalities (helps, does good, etc.)	34	13	13	2	6	-41	10	10	14	17	17
1. Speaks of general functions of government rather than specific services to individuals or families: keeps us safe, passes good laws, etc.	31	2	6	15	8	42	9	12	10	14	17
2. Government as all-purpose provider: builds homes, factories, grocery stores, etc. to provide everyone with whatever they need	8	1	1	3	3		2	3	3	6	2
3. Safety net services: provides assistance to poor people, people who have suffered fires or storm damage, etc.	16	2	4	4	6		6	7	3	8	8

Table 1 (cont'd.)

4. Basic community services: police, fire, paramedics, etc.	10	3	1	2	4		4	1	5	7	3
5. Other: certifying the safety of consumer products, providing insurance, renewing run-down neighborhoods, etc.	10	4	0	5	1	NL	4	2	4	4	6

Question 19: It costs money to pay the people who work for the government. Where does this money come from?

0. Doesn't know/no relevant response	28	11	9	1	7	-34	12	9	7	14	14
1. Government: the President or government prints or coins the money	13	3	3	3	4		5	4	4	7	6
2. Banks, ATM machines, others places where they have/make money	26	8	9	7	2	-25	11	6	9	12	14
3. The people: from people/families/wage earners (does not explicitly mention or describe taxes)	26	8	4	11	3	NL	9	11	6	15	11

Table 1 (cont'd.)

4. Taxes: uses the word "taxes" or describes taxation	29	0	0	14	15	66	6	11	12	18	11	18	
5. Sales taxes: when we buy something, a little bit of the amount we pay goes to the government	16	0	0	7	9	45	2	6	8	21	6	10	
6. Transition responses: Coded both 1 or 2 and 4	10	0	0	5	5	34	3	5	2		5	5	
7. Mature responses: Coded 4 without 1 or 2	19	0	0	9	10	50	3	6	10	22	6	13	18
20. What are taxes?													
0. Doesn't know/no relevant response	37	17	16	3	1	-62	16	13	8	-21	18	19	
1. Money, bills: taxes are money or bills that you have to pay (can't explain further)	21	6	5	5	5		5	9	7		11	10	
2. Bills other than taxes: Utility bills, fines, interest or finance payments on cars, etc.	11	1	1	2	7	33	6	1	4		9	2	-23

Table 1 (cont'd.)

3. Taxes: money that you pay to the government	33	0	3	14	16	60	7	10	16	25	14	19
21A. Who owns the police and fire stations?												
0. Doesn't know/no relevant response	31	16	8	4	3	-46	10	11	10		16	15
1. The boss, chief, deputy, etc.	19	5	3	7	4		6	8	5		11	8
2. The people who work in the building	14	3	7	3	1	NL	3	5	6		6	8
4. The government/governor/township, etc.	36	0	6	13	17	56	13	12	11		16	20
21B. Who pays the police and firefighters?												
0. Doesn't know/no relevant response	28	13	12	2	1	-51	7	10	11		13	15
1. Any response other than those coded in Categories 2, 3, or 4: the people who work there, the bank, etc.	24	6	6	7	5		12	6	6	-20	11	13

Table 1 (cont'd.)

2. People who use the services, including people who get fined for making non-emergency or false alarm calls	8	2	2	2	2		3	5	0	NL	6	2
3. The President, the government, etc. (no mention of taxes)	18	3	3	4	8	22	7	5	6		10	8
4. Tax money/tax payers/ the people who pay money to the government	23	0	1	10	12	52	5	9	9		13	10
22A. Who owns the school?												
0. Doesn't know/no relevant response	14	8	3	1	2	-32	2	5	7	18	9	5
1. The principal/boss/ assistant principal	57	12	18	16	11		21	19	17		28	29
2. The teachers (or the teachers and principal, the people who work there)	12	4	2	2	4		5	6	1		7	5
3. The superintendent of schools/school board/ school district	7	0	0	3	4	29	1	2	4		3	4

Table 1 (cont'd.)

4. The government/ Governor	11	0	1	5	5	30	4	2	5		3	8
22B. Who pays the teachers?												
0. Doesn't know/no relevant response	25	12	9	2	2	-42	6	8	11		11	14
1. The principal (presumably using his or her own money)	29	6	8	9	6		11	10	8		14	15
2. The principal, but using money that comes from the parents, taxes, or the government	18	1	1	7	9	38	6	7	5		7	11
3. The parents of the children who go to the school (i.e., thinks that public schools are paid for like private schools are)	7	3	0	1	3		2	2	3		5	2
4. The President, the government, etc. (no mention of taxes)	9	2	3	4	0		5	3	1	-18	5	4
5. Taxes/tax payers (via the government)	13	0	2	6	5	29	3	5	5		6	7

Table 1 (cont'd.)

6. Other: fees for year-books or supplies, etc.	7	0	2	2	3		5	1	1	-23	6	1	-20
23A. What other kinds of schools are there besides public schools?													
0. Doesn't know/no relevant response	64	22	21	7	14	-53	25	20	19		30	34	
1. Home schools	10	2	1	6	1	NL	2	4	4		8	2	-20
2. Sectarian religious schools	7	0	0	3	4	29	0	3	4	20	3	4	
3. Other private schools: reading schools, tutorial schools, etc.	21	0	2	12	7	47	5	6	10		10	11	
23B. What's the difference between a public school and a private school?													
4. Makes distinction based on funding source	6	0	0	4	2	29	0	0	6	37	2	4	
24A. Would you like to be President when you grow up?													
0. No	56	15	14	11	16		19	20	17		33	23	-21
1. Maybe/undecided/ can't say	18	3	3	6	6		5	5	8		8	10	
2. Yes	22	6	7	7	2		8	7	7		7	15	20

Table 1 (cont'd.)

24B. What would be good about being President?												
0. Doesn't know/no relevant response	51	18	14	7	12	-33	17	17	17	29	22	
1. Power: you can make laws, issue orders, make things happen	12	0	3	6	3	27	2	5	5	6	6	
2. Service: you can do good for the country, make things more fair, help the needy, etc.	12	3	3	2	4		5	5	2	3	9	19
4. Perks: you get to live in the White House, have a bowling alley or swimming pool in your house, get free cars, etc.	21	3	5	7	6		8	6	7	7	14	18
5. Other: fame, popularity, travel, you get lots of lawyers	8	1	0	3	4	24	1	3	4	6	2	
24C. What wouldn't be so good about being President?												
0. Doesn't know/no relevant response	43	19	9	10	5	-43	14	18	11	18	25	

Table 1 (cont'd.)

2. Hard work: work long and hard, little time to be with family, etc.	31	1	10	7	13	40	11	7	13		18	13
3. Work not enjoyable: boring, wouldn't be fun, have to write a lot, etc.	10	3	1	3	3		4	2	4		7	3
5. Daunting responsibilities: wouldn't want all that responsibility, would be afraid of messing up some important decision	11	0	2	2	7	34	4	2	5		6	5
6. Other: you might get sent to jail or be killed, you might not get reelected, etc.	13	1	3	4	5	18	5	4	4		8	5

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[1] Numbers in the frequencies columns show how many students in each group were coded for mentioning the ideas represented by the response categories described at the left side of the table. Underlining indicates that the Chi-square for the underlined distribution was statistically significant at or below the .05 level. In these instances the phi coefficients (with decimal points omitted) are given in the phi columns (where significant linear trends were indicated) or else the letters "NL" appear to indicate that the relationship was nonlinear.

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